

MANUFACTURERS' RECORD

A WEEKLY REVIEW OF THE IRON, STEEL, METAL & HARDWARE TRADES.

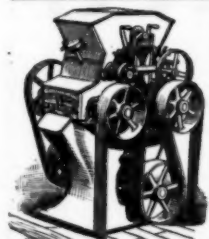
AND A MANUFACTURING AND TEXTILE PAPER, DEVOTED TO THE UPBUILDING OF SOUTHERN MANUFACTURES AND THE DEVELOPMENT OF THE MATERIAL RESOURCES OF THE SOUTH.

VOL. 8. No. 6. }
WEEKLY.

BALTIMORE, SEPTEMBER 19, 1885.

\$3.00 PER ANNUM.
SINGLE COPIES, 10 CENTS.

MANUFACTURERS OF **JAS. SMITH & CO.** DEALERS IN
CARD CLOTHING Works, 413 to 421 Race St., Cor. of Crown. **Manufacturers' & Mill Supplies**
Of Every Description. **COTTON and WOOLEN MACHINERY.** Office & Store, 137 Market St., Philadelphia. Of Every Description.



NORDYKE & MARMON CO., INDIANAPOLIS, IND.
Flour Mill Machinery.

We make Rolls or Portable Mills for making New Process Corn Meal.
Complete outfits on any system Rolls or Stones for Wheat Grinding.

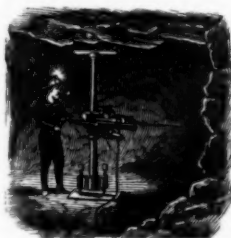
Send for Circular of our \$500 Flour Mill Outfit.



ELEVATORS

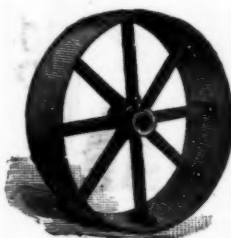
Send for Illustrated Circulars.

MORSE ELEVATOR WORKS.
MORSE, WILLIAMS & CO. Successors to CLEM & MORSE
Manufacturers and Builders of HYDRAULIC STEAM, BELT and Hand-Power, PASSENGER and FREIGHT ELEVATORS
Office: 411 CHERRY STREET.
Works: FRANKFORD AVE., WILDEY & SHACKANAXON STS. PHILADELPHIA, PA.
Branch Office, 108 Liberty Street, NEW YORK.



"ECLIPSE" "STRAIGHT LINE"
ROCK DRILLS, AIR COMPRESSORS,
Machinery for Tunneling, Grading, Mining, Quarrying, etc.
TEN COMPLETE TUNNELING PLANTS FURNISHED FOR SOUTH PENNA. RAILROAD, PA.

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OVER 300,000 NOW IN USE. THE LIGHTEST, STRONGEST, BEST BALANCED and CHEAPEST in the WORLD.
Whole Pulleys from 9 inches to 120 inches diameter. Split Pulleys from 12 inches to 120 inches diameter. All widths of face up to 36 inches, crowning or straight, with single, double or triple sets of arms. Also Tight and Loose Pulleys. Absolute satisfaction guaranteed.

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SHULTZ BELTING COMPANY, ST. LOUIS, MO.

Manufacturers of Shultz Patent Fulled Leather Belting, Lace and Picker Leather.

OUR BELTING is made of Leather, tanned on the surfaces only; the interior (which is the fibre and strength of the hide) is not tanned, but rawhide fulled and softened by our patent process. Our belting is more pliable, and hugs the pulley better and transmits more power than any other Belt. It does not pull out at the laceholes or rivets. It stretches less than any other Belt. It works equally well for the largest Driving Belts or for the fastest running machinery and smallest pulleys. OUR LACE LEATHER is made of Rawhide, by our patent process, without any tanning and is stronger and will wear better than any other. WE ALSO MAKE THE BEST PICKER LEATHER AND BELT GREASE IN THE COUNTRY. Satisfaction guaranteed.

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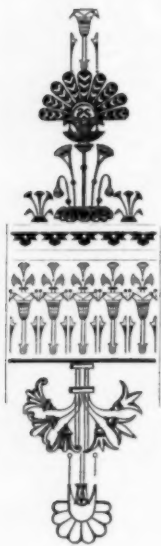
J. L. LINDSAY, Richmond, Va.



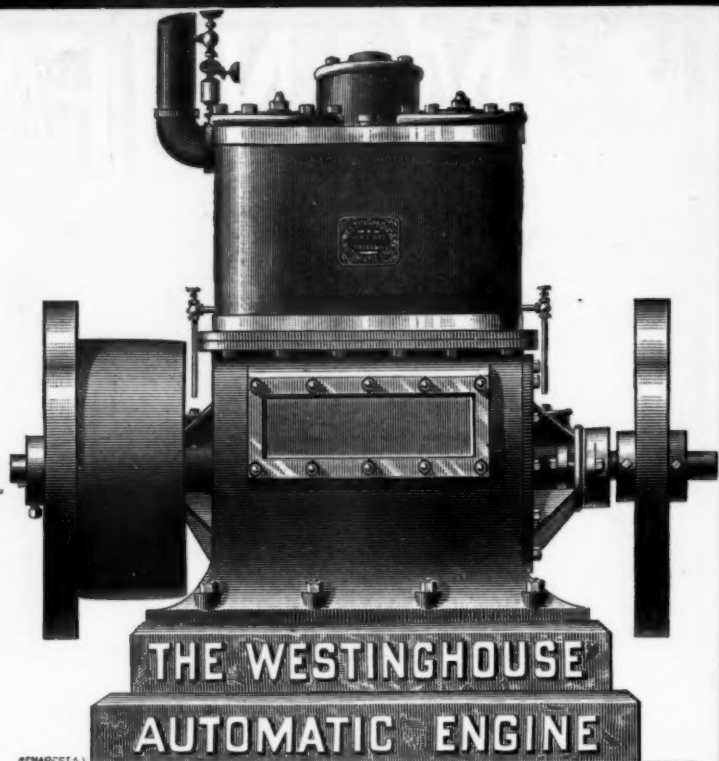
THE WESTINGHOUSE
AUTOMATIC ENGINE

We have carefully prepared Special Circulars with valuable information on
Paper Mills, Saw and Planing Mills, Rolling Mills, Electric Lighting, Flour Mills, Railroad Applications, Centrifugal Pumps, &c.

FREE ON APPLICATION.



WE ADVERTISE
IN THIS ISSUE
OUR



THE WESTINGHOUSE
AUTOMATIC ENGINE

There are four Indisputable Evidences of the Established Success of the Westinghouse Engine:
First—The volume and increase of sales, out of all proportion to any other Engine.
Second—The fact that (May 1) *Twenty-One Per Cent.* of our Orders are Repeated Orders from Actual Users (not Agents,) ranging from 2d to 12th orders.
Third—The steady increase of the average size of Engine sold.
Fourth—The persistent attempts to copy and evade our Patents by Builders of character and reputation.

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— WITH THE —

❖ Westinghouse ❖ and ❖ Reynolds-Corliss ❖ Engines ❖

WE COVER THE WHOLE FIELD OF STATIONARY ENGINEERING WITH UNPREJUDICED JUDGMENT.

❖ WE WILL PLAN AND CONTRACT FOR YOUR ENTIRE PLANT, ❖

Including Boilers, Engines, Heaters, Pumps, Piping, Shafting, Hangers, Pulleys, Fans, Exhausters, Ventilating Wheels, &c.
Also complete Electric Light Installations, and will deliver the whole in running order for

ONE FIGURE AND ONE PROFIT.

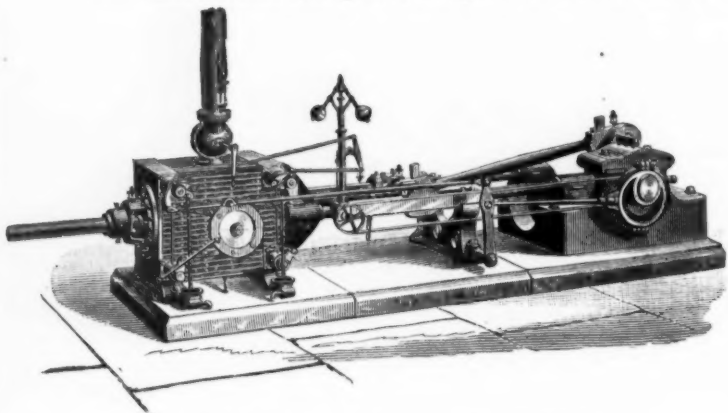
WESTINGHOUSE, CHURCH, KERR & CO.,

Contracting and Consulting Engineers,

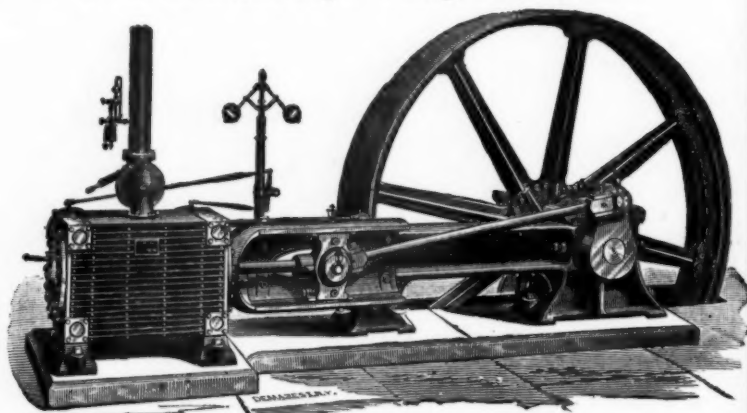
17 Cortlandt Street, New York.

H. H. WESTINGHOUSE, WM. LEE CHURCH, WALTER C. KERR, ISAAC H. DAVIS.

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CAST-IRON FRAME.—Up to 600 Horse-Power.

WE REGARD THE REYNOLDS-CORLISS ENGINE, BUILT BY E. P. ALLIS & CO., MILWAUKEE,

as in a marked degree the best of its type in respect to the design of its details, its massive construction and very superior workmanship. We call especial attention to the wrought-iron bed, and invite examination of working drawings, which can be seen at our office. Or we will send same with one of our engineers to any party contemplating a purchase. These drawings show the superiority of detail design in a manner that cannot be approached in any advertisement or correspon-

dence. Mr. Edwin Reynolds is probably at this moment the most successful designer of heavy *Compound Condensing Engines* in the country. The high-duty *Pumping Engines*, high-speed *Blast Engines* (with Reynold's patent metal air valves) and *Sewage Pumps*, built by the above concern, represent the most advanced engineering. They also build an engine designed especially for high-speed service in rolling mills, having a positive valve motion, cut-off ranging to $\frac{3}{4}$ stroke and speed varia-

ble while running. The company makes a specialty of heavy work, being fully equipped with large tools. Having been appointed *Sole Representatives of Messrs. E. P. Allis & Co.*, we will estimate as such on heavy engineering construction for Cotton Mills, Rolling Mills, Steel Works, Blast Furnaces, Water Works, Municipal Improvements, &c. Send for our Circular of the Reynolds-Corliss Engine, giving comparative illustrations of details.

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Formerly Myron Fish & Co., of Valley Falls, R. I., and Kendrick Loom Harness Co., of Providence, R. I.

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LOOM HARNESS AND REEDS,

Oak Belting, Lace and Picker Leather, and Dealers in Supplies for Cotton, Woolen and Silk Mills.

Agents for Joseph Moone's Sons'
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—Agents for—

RODDICK'S PATENT IMPROVED OIL CANS.

Calf, Sheep and Lamb Roller Skins, and Roll Covers' Tools.



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Unequalled Facilities for Furnishing
Shuttles & Meddle Frames,
WIRE HEDDLES & WIRE GOODS
Of all Descriptions.

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We Manufacture both Worsted and Cotton Machine-Knit Mail Harness for Weaving Fine Worsted and Silk Goods. Also a Full Line of Supplies for Jacquard Looms.

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Railway Heads, Drawing,

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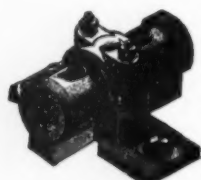
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WARPERS, * DRESSERS, * LOOMS, * & C.

—Whitinsville, Worcester County, Mass.—



ADJUSTABLE SELF-OILING HANGER.

Half and Socket
Self-Oiling Pillow Block.DOUBLE-BRACED ADJUSTABLE
SELF OILING HANGER.Adjustable Self-Oiling
Post Hanger.
6 inches from post to
center of shaft.

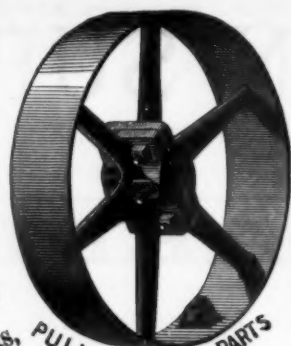
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Office, 2106 Wood St., Philadelphia.
THOMAS WOOD,
Manufacture as Specialties

Power Looms, Patent Robbin or Quill
Winding Machines, Plain and Presser
or Spooling Machines, Reeling,
Warp Spitting, Dyeing and Cal-
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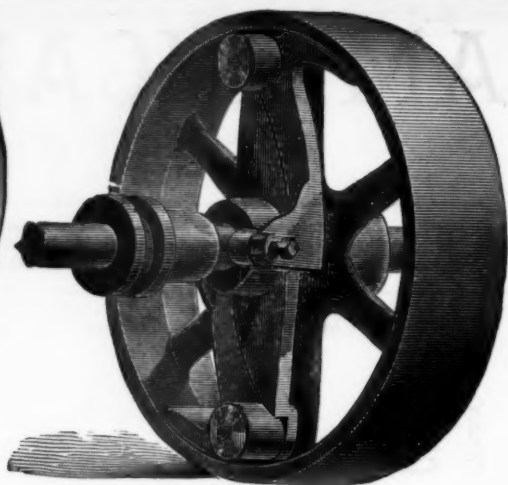
WARPING MILLS,
16, 18 and 20 yards circumference,
WITH IMPROVED HECKS.

SHAFTING,
With Patent
ADJUSTABLE SELF-OILING HANGERS,
8, 10, 12, 15, 18, 20, 24 and 30 in. drop.

Also WALL, POST AND GIRDER HANGERS.
Pulleys from 4 inches to 10 feet in diameter.
PATENT FRICTION PULLEY.
Pulleys in two parts, any size required.
Oil Presses for Lard, Fish and Paraffine.



PULLEY IN TWO PARTS



PATENT FRICTION PULLEY.

Simple, reliable and very durable.
Suitable for any kind of driving, they
serve equally well as driver or driven.

Special Driving,
such as Angular, Muley, and Gallows Driving,
furnished for any position
where possible to transmit power by belts.
PULLEYS from 4 inches to 10 feet in diameter.

Why use old style Bearings, that require oiling
every day, when you can get Bearings at less cost
that only require oiling once in Six Months, and
thus save oil and labor enough to pay for the bear-
ings in use. Test the matter for yourselves; a
trial always secures the trade.

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Office, 2106 Wood St.

PHILADELPHIA, PENNA., U. S. A.

**POWER LOOM.**
THREE BOX.
Patented Feb. 22, 1872.

THE LAMB KNITTING MACHINE MANUFACTURING CO.

MANUFACTURERS OF

THE LAMB KNITTING MACHINES,

TUTTLE KNITTING MACHINE,

—AND—

New AUTOMATIC CIRCULAR RIB KNITTING MACHINE

New Automatic Circular Rib Knitting Machine

For Knitting Ribbed Tops for Socks, Shirt Cuffs,
and Drawer Bottoms.

This machine will produce from twenty-five to thirty dozen pairs of Cuffs in
ten hours, making the WALK and LOWSE COURSE AUTOMATICALLY. The Needle
Cylinder and Dial are made of FORGED CAST STEEL, and everything
about the machine is built in the most THOROUGH and WORKMANLIKE
manner, with the view of having them run the longest possible time with-
out repairs. They are complete
within themselves.

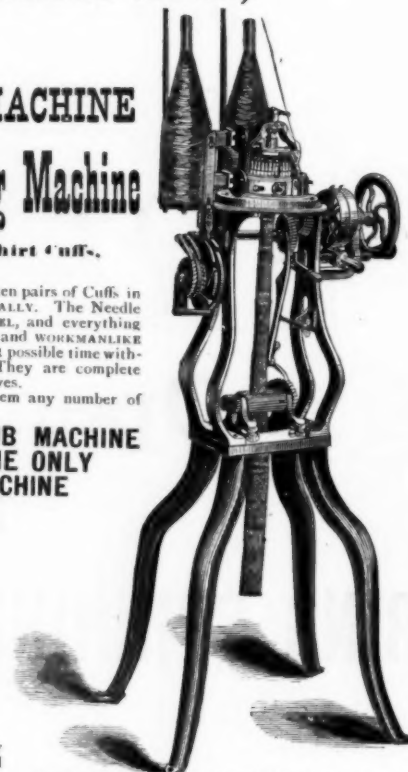
We make them any number of
ribs desired.**THE LAMB MACHINE
IS THE ONLY
MACHINE**

THE LAMB MACHINE.

Send for Full Particulars of
the Above Machines to

That knits hosiery or tubular work of all sizes.
That narrows and widens on hosiery or tubular work.
That knits a regular, right-angle heel, such as is knit by hand.
That narrows off the toe.
That knits a sock or stocking complete.
That knits mittens and gloves of any size without a seam.
That forms genuine Ribbed or Seamed work.
That knits the Double, Flat, or Fancy Webs.
That knits an elastic seam-stitch Suspender with button holes.
That knits the Afghan stitch, Cardigan Jacket stitch, Fancy
Ribbed stitch, the Raised Plaid stitch, the Nubia stitch, Shell
stitch, Unique stitch, Tidy stitch, &c., &c.

It is now the Standard Machine for manufacturing all
lengths of needle beds, from 8 inches by 60 inches, and cuts from
four needles to the inch to ten to the inch. More of these ma-
chines have been made and sold than all others combined.



The Lamb Knitting Machine Mfg Co's New
CIRCULAR RIB KNITTING MACHINE,
For Knitting Ribbed Tops, for Socks, Shirt Cuffs
and Drawer Bottoms.

THE LAMB KNITTING MACHINE MANUFG. CO., CHICOPEE FALLS, MASS.

IN CORRESPONDING, PLEASE MENTION "THE MANUFACTURERS' RECORD."

HOWARD & BULLOUGH, & RILEY,

BUILDERS AND IMPORTERS OF

COTTON MACHINERY.

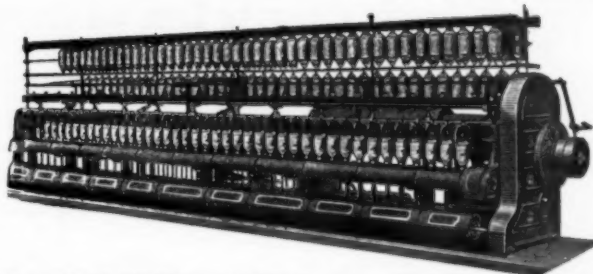
ALSO, IMPORTERS OF

Wool, Worsted and Flax Machinery and English Card Clothing. Hardened and Tempered Steel Wire a Specialty.

MILL ENGINEERS.

No. 19 PEARL STREET, BOSTON, MASS.

SPECIALTIES:

EXHAUST OPENERS, LAPPERS, (LORD'S
EVENERS,) IMPROVED ROLLER CARDS,
PRODUCE MORE AND MAKE LESS
WASTE THAN ANY OTHER.7,000 SELF-STOPPING WARPERS,
Already working with latest improvements.800 CYLINDER SLASHERS
Now at work in America alonePatent and plain Spindle, Spinning and Twisting Frames,
Spoolers, Reels and Circular Warpings, Cloth Folders, Sire Kettles
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PATENT ELECTRIC STOP-MOTION,

ALREADY APPLIED TO OVER

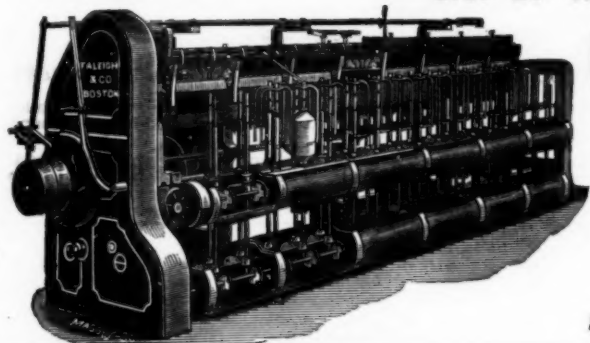
10,000 DELIVERY HEADS
OF DRAWING, AND
71,000 INTERMEDIATE
ROVING SPINDLES.The quality of Sliver produced by our Frames
surpasses all others, and Waste, Single and Roller Laps
are prevented, and production increased.

Correspondence Solicited.

Send for Circulars.

SLUBBING AND ROVING FRAMES WITH LATEST AND BEST IMPROVEMENTS.**F. A. LEIGH & CO.**
Importers of Mill Machinery,

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Openers, * Lappers, * Cards, * Drawing,
Slubbing and Roving Frames,

CARD CLOTHING, Etc.

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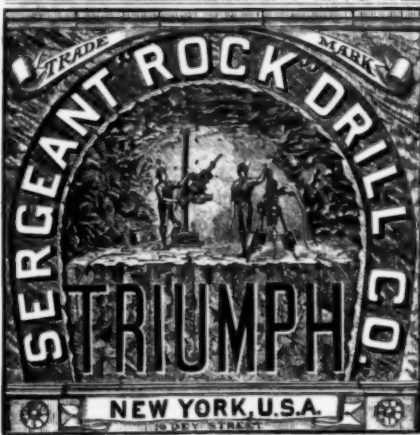
Send for Circulars.

**GANDY'S PATENT MACHINE BELTING**

GOLD MEDAL AWARDED NEW ORLEANS, 1885, FOR BEST RUNNING BELTS.

*Made PERFECTLY Straight and any Length without Joints.**For Main Driving it is the Best. Much Cheaper Than Leather.*

MANUFACTURED BY

THE GANDY BELTING CO., BALTIMORE, MD.**THE "TRIUMPH" ROCK DRILL**
and NORWALK AIR COMPRESSORAre the Latest and Most Improved Machines that were ever designed for the work required of them. They are the Most
Simple, Economical and Effective now known, and will satisfy all Purchasers.

Boilers, Steam Pumps, Hoisting Engines, Pipe and Fittings, Electric

Blasting Apparatus, Powder, Caps and Fuse, Steam and Air Hose, Wire Rope,

—And General Mining and Contractors' Supplies.—

Complete Specifications for Rock Drilling and Mining Plants Furnished on Application.

SERGEANT DRILL CO., 16 Dey Street, New York, U. S. A.**WHITINSVILLE SPINNING RING CO.**

WHITINSVILLE, MASS., U. S. A.

SUPERIOR WORKMANSHIP.

NOT EXCELLED IN DURABILITY.

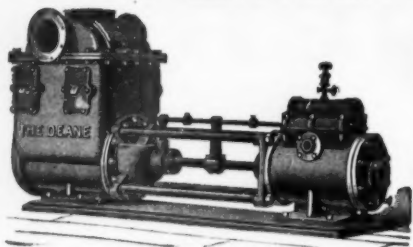
EVERY RING WARRANTED.



The Simplest and Best Method of Adjusting Rings.

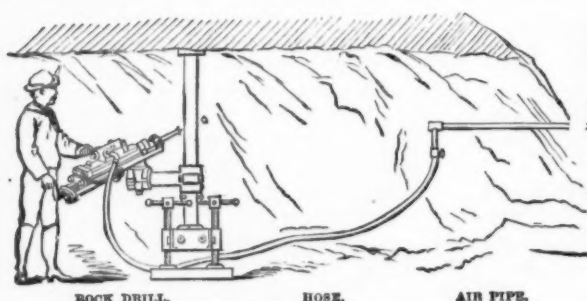
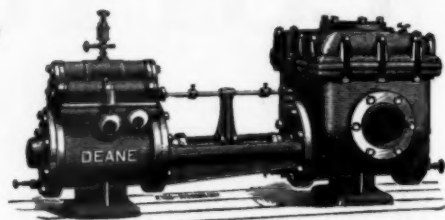
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THE DEANE STEAM PUMP CO., HOLYOKE, MASS.



MANUFACTURE
Every variety of Pumping Machinery
VACUUM PUMPS FOR SUGAR WORK, ETC.
IRRIGATION PUMPS ARE SPECIALTIES.
Water Works Pumping Engines for Cities and Towns.

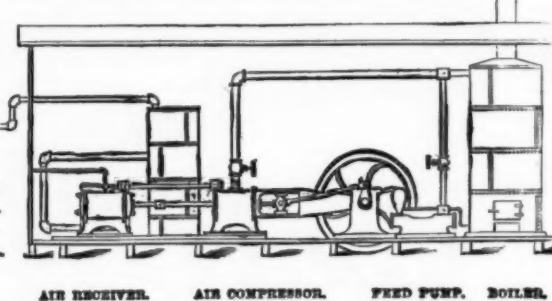
SEND FOR NEW ILLUSTRATED CATALOGUE No. 22.



ROCK DRILL.

HOSE.

AIR PIPE.



AIR RECEIVER.

AIR COMPRESSOR.

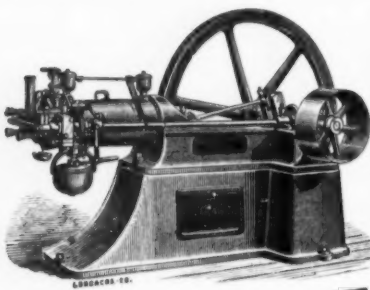
FEED PUMP.

BOILER.

RAND DRILL CO.

23 Park Place, NEW YORK.

Rock Drills,
Air Compressors, and
General Mining Machinery,
Blackrock Blasting Powder,
Blasting Batteries and Fuse.



Over 14,000 in Use.

Otto Gas Engine

20 to 70 per ct. less Gas consumption than ANY other ENGINE.

Working Without Boiler, Steam, Coal, Ashes or Attendance.

Started instantly by a Match, it gives full power immediately. When stopped, all expense ceases.

No explosion, no fires nor cinders, no gauges, no pumps, no engineer or other attendant while running. Recommended by Insurance companies. UNFURPASSED IN EVERY RESPECT for hoisting in warehouses, printing, ventilating, running small shops, &c. Sizes: 1 to 25-horse power.

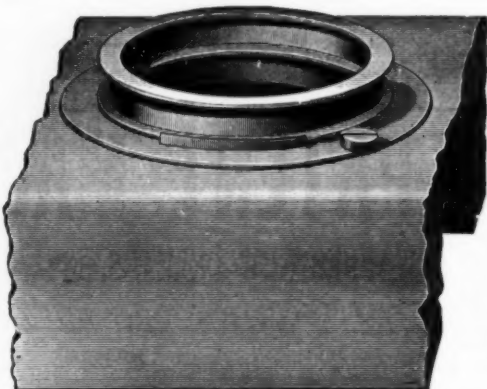
Branch Office, 214 Randolph St., Chicago.

SCHLEICHER, SCHUMM & CO., N. E. cor. 33d and Walnut Sts., Philadelphia.

DOUBLE ADJUSTABLE Spinning Rings.

GEORGE DRAPER & SONS,
HOPEDALE, MASS.

TELEGRAPH ADDRESS AND RAILROAD STATION,
MILFORD, MASS.



	Number of Rings sold.	Number of Rings sold for repairs.
1869.....	6,025.	
1870.....	20,258.	
1871.....	38,648.	
1872.....	94,264.	12
1873.....	117,301.	
1874.....	168,382.	500
1875.....	223,994.	963
1876.....	185,319.	947
1877.....	270,811.	946
1878.....	215,214.	3,309
1879.....	336,918.	8,007
1880.....	567,860.	11,264
1881.....	659,730.	8,974
1882.....	636,715.	22,515
1883.....	416,500.	21,689
1884.....	319,869.	25,105
1885, 5 mos.	112,522.	12,116
Total number sold in 16 years.....	4,390,260	116,349
Total number in use 4,273,911.		

The great durability of our Rings is shown by the fact that we have more rings in use over twelve years old than all we have sold for repairs.

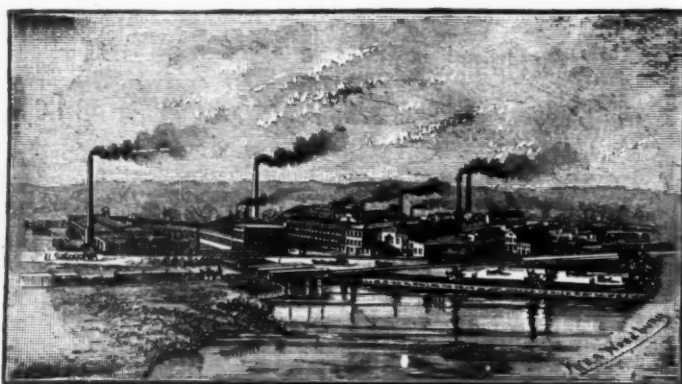
This statement shows unmistakably that a mill once supplied with our rings need think but little of the cost of repairs. As the number sold for repairs is an average of about twenty per cent. of the number sold the tenth year before, the average life of our rings will be at least twelve years.

Do not make the mistake of ordering new frames without specifying Double and Adjustable Rings. While they cost more to begin with, they are much the cheapest in the end, on account of their uniform excellent quality and unparalleled durability.

As an encouragement to use none but the best of Rings, we have decided to reduce the price on and after the first day of January, 1885, of those 1 1/2 inches or less in diameter, without holders and screws, to be used only to take the place of our rings worn out, to 12 cents each.

Washburn & Moen Manufacturing Co., Worcester, Mass.

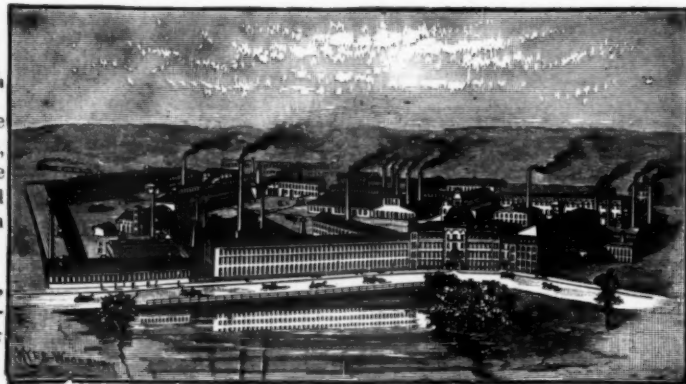
Wire Drawers, and Manufacturers of Iron and Steel Wire of Every Description.



Iron and Steel Telegraph and Telephone Wire.

Patent Steel Wire Bale Ties, Pump Chains, Chain Wire, Steel Wire for Springs, Needles and Drills, Watch Main Springs.

Send for Price-Lists, Circulars and Descriptive Pamphlets on Our Specialties.



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21 Cliff Street,
New York City.

GLIDDEN PATENT STEEL BARB WIRE.

The Best Fence Material in Use.
For Sale by Special Agents and Hardware

Proof against Fire, Wind and Flood.
Dealers in all Parts of the United States.

CHICAGO WAREHOUSE:
107 Lake Street,
Chicago, Illinois.

BALTIMORE Manufacturers' Record.

Published Every Saturday by
BIGSBY & EDMONDS.

R. E. Edmonds, J. W. Bigsby, Wm. E. Edmonds.

R. H. EDMONDS, EDITOR.

—OFFICE.—

71 and 73 Exchange Place, Cor. Commerce St.,

—BALTIMORE.—

NEW YORK BRANCH OFFICE:

Room 6, No. 118 Fulton Street,
J. W. BIGSBY, Resident Partner.

—SOUTHERN OFFICE, ATLANTA, GA.—

J. W. AVERY, Manager.

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Advertising Agent for New York and Vicinity.
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" " " " " " 2 " " " " " " 3.00
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" " " " " " 1 year " " " " " " 32.00
For advertising on outside pages add 50 per cent. to
the above rates.
Reading Notices 50 cents per line each insertion.

BALTIMORE, SEPTEMBER 19, 1885.

We give to-day the second of the series of special articles upon particular phases of Southern development, which, as stated a few weeks ago, would appear at irregular intervals. On September 5th, we traced the growth of the phosphate mining and manufacturing interests of South Carolina, showing that the capital invested in this business had increased from \$3,493,300 to over \$6,500,000, and that the amount of phosphate rock mined had risen, from 190,000 tons in 1880 to 409,000 tons in 1884. In this industry, as we see from these figures, there has been an increase of about one hundred per-cent., or in five years it has doubled in volume. To-day we give some interesting facts and figures regarding another Southern industry—the manufacture of cotton-seed oil—which has more than trebled in the number of mills, and the amount of capital invested since 1880. The increase in five years in the number of cotton seed oil mills from 40 to 146, and in the amount of capital invested from \$3,504,500 to \$10,792,450 is indeed a remarkable growth, and goes to show the progress that the South is making in manufactures.

MR. JOHN ASPINWALL, who purchased the Mobile Cotton Mill, Mobile, Ala., last May, repaired the machinery and started up the mill in July, writes us that he will add more machinery, as "the demand for his goods is greater than the supply."

Possibilities of the Cotton Crop.

It is of course useless to make any predictions as to what the cotton crop of this year will be, but some more speculations, of which we gave a few not long since, as to its possibilities, may not be uninteresting. In fact, a few suggestions on this point just at present may be of value, inasmuch as there is a disposition to overestimate the probable decrease on account of the damage to the crop during the last few weeks. The enormous acreage of the present year appears to be overlooked by many who have been figuring on the crop. The Commercial and Financial Chronicle, an authority on cotton, puts the acreage at 18,700,000 acres, which is 2,500,000 acres more than in the big-crop year 1882, and is 6,000,000 acres more than in 1879. If the average yield per acre were as large as in 1879, the total crop would be over 8,500,000 bales. This is the possibility, in the way of a big crop, that the South has been facing and this possibility was by no means out of the range of probabilities on August 1st, when the condition of the crop was better even than on the same date of 1879. On August the 1st, then, the indications pointed to a possible yield of 8,500,000 bales or more.

According to the National Cotton Exchange there has been a decline of about six per cent. in the average condition of the crop since August 1st; to be on the safe side, though, we will suppose, the decline has been ten per cent., and this is about what the United States Agricultural Department makes it. This would still leave the possibility of a crop of 7,650,000 bales, supposing the crop to have promised a yield of 8,500,000 bales on August 1st. If the average yield this year be as large as in 1882, the crop would be 7,963,000 bales. There is nothing to indicate that this will not be at least an "average crop" in yield. If this should be the case and the yield be only equal to the average yield of the last fifteen years, the crop would be over 7,300,000 bales. The United States Agricultural Department in its September report says that notwithstanding the decline in the condition of cotton since August 1st, it is still two points better than the average condition on September 1st of the last ten years. Now the average yield of the last ten years was 0.39¹⁰ bale per acre. Hence, if the crop continues about two points better than the average of the last ten years between September 1st and the time that it is all picked, the average yield ought to be nearly 0.42 bale an acre. This would give a total yield of 7,800,000 bales. We do not pretend, however, to say that the yield will be as large as this. In fact, it must be understood that we are not venturing any predictions as to what the final outcome will be, for much depends upon the picking season. It is pos-

sible that the crop will be larger than the present conditions would indicate, and again an unfavorable picking season might make it much shorter than present conditions promise. Moreover, the acreage may be somewhat less than the estimate of the Commercial and Financial Chronicle. We merely give these speculations to call attention to the very large acreage which since 1879 has increased from 12,600,000 acres to an estimated 18,700,000 acres, or nearly fifty per cent. and to show what the possibilities, of the crop, have been and are yet.

To Develop Anniston's Manufactures.

At a recent meeting of the Board of Trade, of Anniston, a scheme was proposed, which if carried out, will result in crowding Anniston with manufacturing industries of all sizes and varieties. It is a simple proposition. Mr. King, the president of the Board, proposed that a certain per cent. upon the sales of the merchants be paid into a common fund to be used in employing some competent citizens to go West, East and North and lay before the owners of the various manufacturing concerns the advantages Anniston offers, and to try and prevail upon them to move their industries to this point.

The Woodstock Iron Company have spent a great deal of money in advertising Anniston through the newspapers. No city or corporation, however, has undertaken to bring their section to the personal notice of capitalists and manufacturers as it is proposed by Mr. King. His idea is for the board of trade to get up all the necessary data concerning Anniston and this section, including freight rates, business, health, climate, weather, labor, minerals and agricultural statistics, and to have the same put in a concise form and printed. He then proposes to employ a man of suitable capacity for the task, to go from St. Louis to Portland, Maine, in the interest of Anniston; to go and see every manufacturer of every class of goods and give him such points as will induce him to move his manufactory to this point. There are thousands of manufacturers who are abundantly satisfied where they are and with the success they are doing, but there are perhaps thousands who could be induced to come here in the hope of bettering their condition. When this agent found a man cramped for room, paying a high price for labor, because of high priced rent and cost of living, he could show him the advantage of coming here where there is plenty of room, and plenty of fresh air for the operatives, where they could enjoy cozy homes, instead of being cooped up in brick tenement houses. Here they could work all the year, and the rates of freight would enable them to meet competition anywhere, especially where it is remembered that the raw material for all kinds of iron, wooden and cotton industries can be had here cheaper than in the North and East. The additional inducements will be offered by the Woodstock Iron Company in donating sites for manufacturing enterprises, and the Anniston Land and Improvement Company in assisting manufacturing enterprises by taking stock in them, or loaning them money. This kind of advertising will be obliged to bring good results. It has never been tried, because no city has been able to offer these inducements, or if they were able, have never put a man on the road whose sole business it was to see the manufacturers and capitalists in person and present their advantages and urge their acceptance.—Anniston, Ala., Hot Blast.

We are glad to see the people of Anniston preparing to properly support the Woodstock Iron Co. and

the Anniston Land & Improvement Co. in their efforts to build up that town. Anniston is in many respects a remarkable place, and we are confident that it is destined to be one of the most important manufacturing centers of the South. Its advantages and attractions are equalled by few towns in the country, and probably surpassed by none. It well deserves its title of the "Model City of the South." The managers of the Woodstock Iron Co. and the Land & Improvement Co. have shown sound judgment and wise foresight in their work in behalf of Anniston. They have laid a firm foundation for a city that is sure to rapidly increase in wealth and population. Now that the business men of the place propose to do their part in helping on the growth of Anniston, we expect to see many new enterprises established there.

THE so-called American Exhibition in London has had uncomplimentary things said about its management for some time past. In fact, it is asserted that the scheme is a private enterprise wholly unworthy to use the title American or to represent this country. Some of these stories have induced the Engineering and Mining Journal to maintain a strict silence regarding it. Now, however, they come to us from such trustworthy sources that we feel it a duty to state the fact that the so-called American Exposition in London is not recognized in this country as representative of American industry or art. It is a private enterprise of somewhat doubtful character, and, from the information we have received, appears to be unworthy of the support or encouragement of Americans.—N. Y. Engineering and Mining Journal.

THE MANUFACTURERS' RECORD has repeatedly advised the Southern people to investigate this proposed exposition before spending money to make exhibits at it. We are anxious to obtain a little information as to this scheme, its backers, financial standing, etc. Will some of our Southern exchanges that are so vigorously championing its interests kindly give us the desired information?

TOBACCO is almost revolutionizing farming in North Carolina; and so far it has yielded wonderful profits to the grower. There is danger, however, that, like cotton, it will receive all the attention of farmers to the disadvantage of diversified agriculture, which in the long run is the safest and best system of farming. The Raleigh correspondent of the Charleston News and Courier says:

"The cutting and curing of the tobacco crop and the picking of cotton are engrossing the attention of farmers. There never was such a startling change made in one year in the habits of the farmers as has been brought here by the introduction of tobacco. The first sale was made by Governor Jarvis, September 25, 1884. This season 350,000 pounds were sold here, and next season not less than 3,500,000 to 4,000,000 will be marketed. There are 8,000,000 acres of new tobacco land in eight or ten counties. That tells the story."

THE NEW SOUTH, of Columbus, Miss., has been enlarged to 16 pages, and now presents a very attractive appearance. The New South is an interesting monthly that merits the success that is attending its publication.

The South's Great Staple.

According to the National Cotton Exchange, the cotton crop of last year was 7,000 bales less than in the preceding year, the total yield being 5,706,165 bales against 5,713,200 bales for 1883-84. The annual report of the Cotton Exchange summarizes the cotton movement for the year ending August 31st as compared with the preceding year, as follows:

	1885—Bales.	1884—Bales.
Net port receipts.....	4,773,541	4,800,554
Exports to Great Britain.....	2,425,239	2,484,836
Exports to France.....	403,726	468,996
Exports to the Continent and Channel.....	1,090,664	962,749
Total Exports.....	3,919,629	3,916,581
Overland direct to mills.....	633,241	591,580
Total crop.....	5,706,165	5,713,200
Gross overland.....	928,711	989,280
Takings of Northern Spinners.....	1,436,711	1,537,166
Takings of Southern ".....	316,414	339,517
Total consumption in the United States.....	1,753,125	1,876,683
Sea island crop.....	40,452	25,490
Stock at the close of the year.....	129,488	126,721
Shipped to Canada.....	28,343	22,052

In the total exports there is a difference of only 3,000 bales between the two years. The consumption of cotton by Northern mills shows a decrease of 100,000 bales and by Southern mills a decrease of 23,000 bales.

The Commercial and Financial Chronicle in its review of the cotton movement for the year in discussing consumption says:

We have at last in the figures of consumption in Europe, the evidence of the slack times everywhere prevailing. Poor results to the manufacturer had been the cry for the previous three years, but in the received statistics very little effect, on the use of cotton was observable. In fact, until 1883-4, decided progress was shown, and for that year, even after the revisions which have since been made by Mr. Ellison, the total is only slightly under 1882-3. In the meantime, prices of manufactures declined, spinners' profits faded away, the capacity of the public to take goods lessened, and this industry, in common with all other industries of the world, began to feel the suppressive force of conditions under which a contraction of production, the only relief possible, became imperative. No one is surprised, therefore, that the record of the past season shows a decided falling off in the takings of the raw material.

The spinners' situation has also been aggravated this year by a short supply of cotton. Two years of deficiency succeeding one another is quite unusual. And yet that has not only been the case, but the deficiency has each season been in the American staple. Furthermore, as a result of this, it has happened that during a period when prices of commodities have constantly and almost universally declined, American cotton has on the average ruled very little lower, and during the winter months (when purchases by manufacturers are so largely made) higher than during the previous season, being prevented subsequently from advancing only by spinners' decreased takings. In fact, when the first half of the season had passed, the position of cotton was thought to be very strong indeed, and the prevailing opinion put the visible supply at the end of the season so small that the general estimate of values for the last half of the year was a much higher average than has ruled. Thus, had the European mills kept up their use of cotton in 1884-5 to the figures of 1882-3 the first of October would find us with the world's visible supply reduced to about 800,000 bales; and had the trade in the United States done likewise, the visible supply would then reach only

about 500,000 bales. This bare statement shows how imperative was the requirement for a decreased consumption, as it would have been impossible to have brought the visible supply down to such figures without at the same time raising the price of the raw material to very high rates.

A few statistics as to the production of cotton during the last ten or fifteen years may prove of interest. Compiling some figures from Latham, Alexander & Co's last "Cotton Movement", we have the acreage, yield and average yield per acre since 1869-70 as follows:

Years.	Acres planted.	Crop—bales.	Average yield per acre.
1869-70	7,933,000	3,122,000	0.39½
1870-71	9,985,000	4,352,000	0.43½
1871-72	8,911,000	2,974,000	0.33½
1872-73	9,560,000	3,931,000	0.41
1873-74	10,816,000	4,170,000	0.38½
1874-75	10,982,000	3,833,000	0.35
1875-76	11,635,000	4,632,000	0.39½
1876-77	11,500,000	4,474,000	0.39
1877-78	11,825,000	4,773,865	0.40½
1878-79	12,240,000	5,074,155	0.41½
1879-80	12,680,000	5,761,252	0.45½
1880-81	16,123,000	6,605,750	0.41
1881-82	16,851,000	5,456,048	0.32½
1882-83	16,776,000	6,949,756	0.42½
1883-84	16,780,000	5,713,200	0.34
1884-85	17,425,980	5,706,165	0.32 9-10
1885-86*	18,700,000		

*Estimated.

In the sixteen years given above the highest average yield is 0.45½ per cent. of a bale an acre in 1879, the next highest being 0.43½ in 1870; the yield for 1882, the year which produced the largest crop so far made was 0.42½. The general average yield for the sixteen years is 0.37 bale per acre. In other words the yield for sixteen years shows that during that time the average has been only a little over one bale of cotton to every three acres planted.

The important position which cotton holds in the foreign trade relations of the United States may be seen when it is known that since 1870 or during the last fifteen years the total exports of this staple from the United States have aggregated 50,098,113 bales, the value of which, according to the official government reports, has been a little over \$3,000,000,000, or an average of \$200,000,000 a year added to the export trade of the United States by cotton alone. This is about \$500,000,000 more, than the value of the wheat, corn and flour exported during the same period and is very nearly one-third of the value of the total exports from the whole country. During the same fifteen years the South has produced over 74,000,000 bales of cotton valued at over \$4,500,000,000.

The production, consumption and exports of cotton since 1870 have been as follows:

Years ending Aug. 31.	Crop in U. S. bales.	Consumption bales.	Exports bales.
1870-71	4,352,317	1,110,196	3,169,009
1871-72	2,974,351	1,237,330	1,957,314
1872-73	3,930,508	1,201,127	2,679,986
1873-74	4,170,388	1,305,943	2,840,981
1874-75	3,832,991	1,193,005	2,684,708
1875-76	4,632,313	1,351,870	3,234,244
1876-77	4,474,069	1,428,013	3,030,835
1877-78	4,773,865	1,489,022	3,360,254
1878-79	5,074,155	1,558,389	3,481,004
1879-80	5,761,252	1,789,978	3,885,003
1880-81	6,605,750	1,938,937	4,589,346
1881-82	5,456,048	1,964,535	3,580,622
1882-83	6,949,756	2,073,096	4,766,597
1883-84	5,713,200	1,876,683	3,916,581
1884-85	5,706,165	1,753,125	3,999,629

The consumption of cotton by the mills of this country, as the foregoing

figures show, was less during the year just ended than in any year since 1878-79, the consumption in 1882-83 being over 300,000 bales more than in the past year.

Philadelphia's Railway Facilities

Discussing the limited railway facilities of Philadelphia as compared with Chicago, the Iron Age says:

In sharp contrast with the facilities for transportation afforded to the manufacturers and merchants of Chicago stands the meager railway service vouchsafed to Philadelphia. Here is the principal manufacturing city of the country, in staple products, supplied with only two trunk lines, one of which forms the only connection Philadelphia at present commands with the West and South. Between Philadelphia and New York there are only two railway lines. Between Philadelphia and the anthracite coal regions there are also only two railway lines, for, though coal can be hauled over several routes by rail and canal, it must finally reach the city under the auspices of either the Philadelphia and Reading or the Pennsylvania Railroad. The Delaware River enables Philadelphia to transact a considerable maritime business, having in this respect but one complaint to make, which is the distance from the sea. Nevertheless, the coastwise trade of the city is very great and its foreign commerce is considerable. So far as water communication is concerned, Philadelphia is certainly abreast of Chicago, but compare the 22 trunk lines of the latter city with the two of the former, and observe how the city which Penn founded in 1682 is overshadowed by the lake city, which was hardly known 50 years ago.

Not many years since quite a number of independent railways connected Philadelphia with inland towns from 20 to 60 miles distant. Some of them ran in the direction of the anthracite coal regions, and could have been extended thither if their owners had willed it, and Philadelphia manufacturers would undoubtedly have been greatly benefited in their ability to get cheaper coal than they have ever had. Other lines could have been extended to Southern and Western points, enlarging the market for Philadelphia goods, which have always had an excellent reputation for careful manufacture and honest composition. To day there are in existence but two independent lines, the Pennsylvania Railroad Company having absorbed a large number, and the Philadelphia & Reading Railroad Company the remainder. Even the canals which extend into the interior of Pennsylvania and across New Jersey have passed into the control of these two companies and are operated in harmony with their railway lines, as Philadelphia shippers know thoroughly well. It is very unfortunate for Philadelphia that its minor railways have been controlled by unambitious capitalists, who thought more of leasing their short lines for assured rentals than they did of developing their properties into great systems connecting the Quaker City with distant points.

Latterly Philadelphia has been favored with some promise of an important enlargement of its railway facilities. Adverse influences have been brought to bear against one of the projects, however, and at present the extension of the Baltimore & Ohio Railroad from Baltimore to Philadelphia appears to be the only scheme in this direction that has any reasonable prospect of success. The completion of this new railway between Baltimore and Philadelphia is expected to be accomplished during the coming winter, when Philadelphia will be brought into direct communication with the vast territory reached by the most southern of the great East and West trunk lines. This will be an epoch in the history of Philadelphia, and

its citizens look forward to new growth with the wider opportunities thus opened to them.

Philadelphia has permitted itself to be almost owned, body and soul, by a grasping railroad corporation—the Pennsylvania Railroad—and she now finds it next to an impossibility to break the control of this company. It will indeed be a blessing to that city when the Baltimore & Ohio's line is completed. The entire business interests of the city, the travel and traffic of a great center of population and industry, like Philadelphia, will then be no longer compelled by necessity to use the Pennsylvania road. That the managers of this road appreciate what a large share of their business will be lost, as soon as the Baltimore & Ohio is completed, is clearly shown by their desperate efforts to keep the latter company from getting into Philadelphia.

"Sang Digging" in North Carolina.

HIGHLANDS, MACON CO., N. C., Sept. 10, '85.
Editor Manufacturers' Record:

While many of the rich coves in Macon and Jackson counties have a great deal of such valuable timbers as the black birch (mountain mahogany) and black walnut, still many of these places now have an attraction for the "Sang Diggers," as the mountain vernacular puts it. For several days we have seen parties of two and three persons passing about the country equipped with grubbing hoes and "packs" of provisions. We supposed that they were prospecting for gold, as it is found here on the surface in many localities, but upon inquiring of an old gentleman, who has lived for forty years right here, we were told that the parties we had been noticing were the "Sang Diggers," who always put in their appearance in September, as the "sang" is then ready for digging. "Sang" is an abbreviation for ginseng, which grows very plentiful in some of the rich coves, where it is only found in quantities worth looking after. The diggers of this root are generally provisioned for a week's work, and when they come up with the plant they generally average, according to its plentifulness, from five to ten pounds per day. Mr. Benson Pickelsimer, whose statements are always undoubted here, says that he has dug thirty pounds of the root in a day; and further states that he can do it again in the coves about Cowell Mountain. The plant is found scattered all through this mountain region, though sparsely, save in some of the very rich coves. It is claimed by the root diggers that they get fifty cents per pound for it in a green state; so where they find it plentiful they have a bonanza while it lasts. Mr. Pickelsimer says, that they frequently find roots that weigh from half a pound to one pound and a quarter. While much of this root is used in the United States, by far the greater portion goes to China, where it is used and highly esteemed as of rare medicinal virtue.

J. W. WALKER.

As usual, the damage to crops by the dry weather has been greatly exaggerated, and the crops will be good generally. A few persons will make very poor crops. They always do. They don't work them. To such persons something is always wrong. It is too hot or too cool, too wet or too dry—never just right.—Monroe, N. C., Enquirer.

There is hardly any doubt but that the Enquirer is right in stating that the reports of damage to the crops have been exaggerated. Up to the present time cotton is, we think, safe for the largest crop ever produced. We have heretofore given the estimate of the United States Agricultural Department of an increase in the corn crop of the South of 65,000,000 bushels over last year.

"Climax" Patent Band Saw-Mill.

We present herewith an engraving of Smith, Myers & Schnier's Improved "Climax" Band Saw-Mill for logs. With this mill the output of lumber can be increased, it is claimed, at least twenty per cent. without any additional outlay for logs and labor over and above that required on a circular mill. Owing to the thinness of the saws used (17 gauge) but 1-12 kerf is removed. This shows a very important cash saving from the sawdust heap. In valuable timber especially, this saving is large, and would in itself figure to a neat profit after a year's business. In thin lumber, such as $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$, the percentage of saving is increased, it is said, to from 25 to 40 per cent.

The circular of the manufacturers gives the following description of this mill:

to withstand the great strain of the saw, which is six inches wide, and lightness, to reduce the force of inertia and consequent sudden strain on the saw when entering the log. The upper wheel has a vertical adjustment, and can also be adjusted so as to make the saw track as desired. This can be accomplished while the mill is running, and without the sawyer changing his position.

The main shaft is of steel, 5 inches in diameter, and has three extra long bearings, two main bearings, and one outside wheel bearing. The upper wheel shaft is also of steel, 4 inches in diameter, and has a bearing on each side of the wheel, close to the hub. The mill is also provided with an attachment for drawing the saw away from the cut while the carriage is gidding back. This consists of a device so connected to the saw guides that when the motion of the carriage is reversed, the saw blade is

which admits of its being moved forward a distance of 4 inches in advance of the others. These knees or standards are made to recede from 38 to 50 inches, as desired. The set is very quick and accurate, and easily operated; it is graduated to set by one-sixteenths. After the log has been entirely sawed, the knees can be simultaneously drawn back by a single hand-wheel conveniently near the setter, or, when desired, our patent power device, for advancing or receding the head block knees, either with or without the log, can be attached. When desired, the mill can be furnished to use in connection with any other make of carriage or head blocks. This mill will square a log 8 feet in diameter, and cut boards from $\frac{1}{4}$ inch to 1 foot thick from a log squared 6 feet."

For further particulars, address Smith, Myers & Schnier, 323 to 329 W. Front St., Cincinnati, Ohio.

Gen. McClellan's Mining Operations.

MONTAGUE, MONTAGUE CO., TEXAS,
September 10, 1885.

Editor Manufacturers' Record:

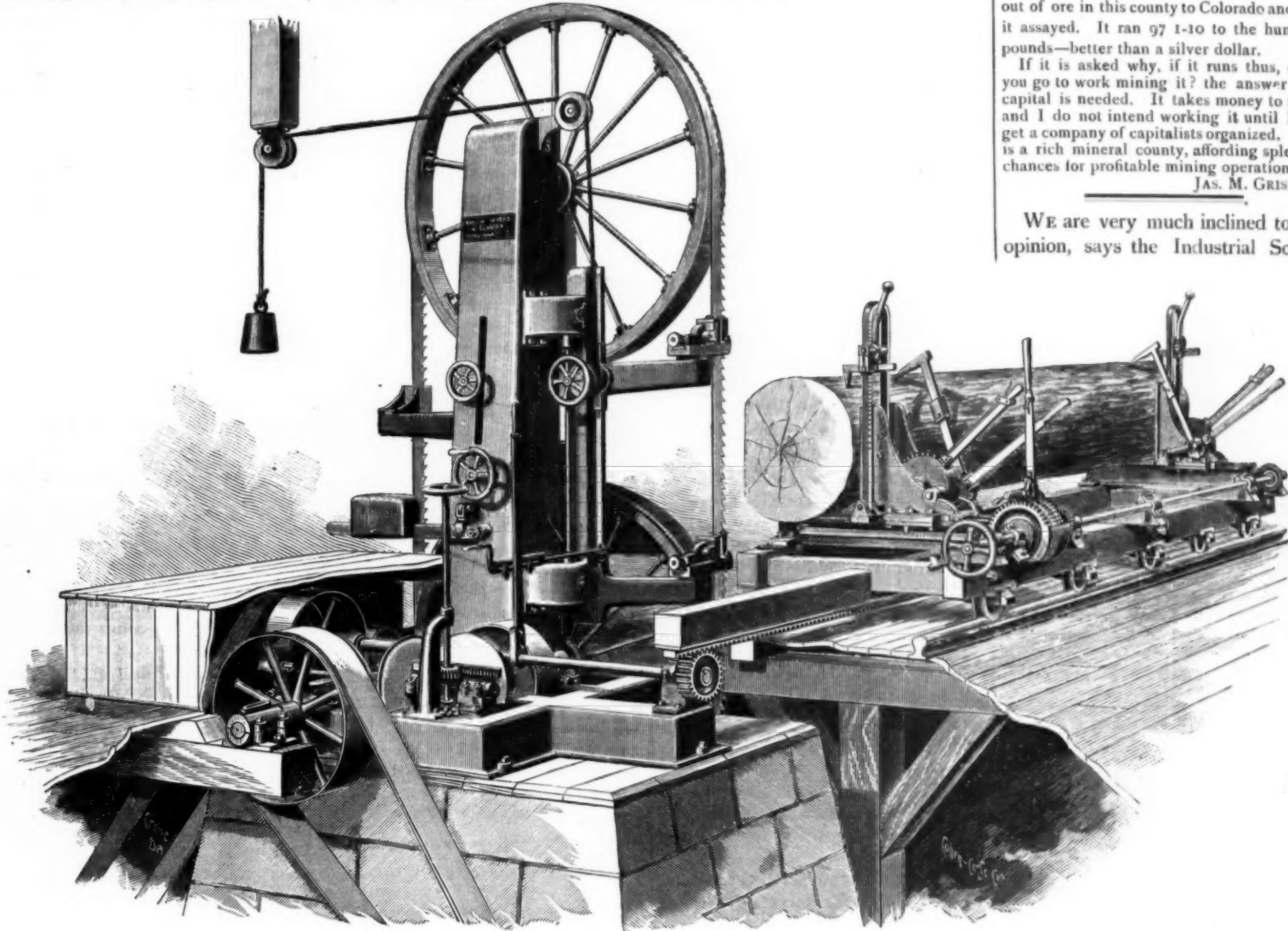
Gen. Geo. B. McClellan has a rich copper and silver mine in Willbarger county, this State, and has the finest smelter in the Western country, Colorado, California and New Mexico not excepted; his ore runs 90 per cent. copper; he is using a large amount of capital in developing the business. The mine is 80 miles west from this place on an air line.

I have considerable mineral lands in this county and some in Knox county. I think my ore is finer than Gen. McClellan's, carrying gold, silver and copper. I have a mountain of asphaltum; 7 pounds of it I put in a pot of boiling water and it made 6 pounds of crude oil. I sent a piece of silver run out of ore in this county to Colorado and had it assayed. It ran 97 1-10 to the hundred pounds—better than a silver dollar.

If it is asked why, if it runs thus, don't you go to work mining it? the answer is—capital is needed. It takes money to mine and I do not intend working it until I can get a company of capitalists organized. This is a rich mineral county, affording splendid chances for profitable mining operations.

JAS. M. GRISBY.

WE are very much inclined to the opinion, says the Industrial South,



CLIMAX PATENT BAND SAW MILL.

"The column is 18 feet high, it is cast in one piece and is very heavy and substantial, and is well adapted to withstand the heavy strain it has to bear. The feed works consist of a powerful friction device which is capable of moving the largest and heaviest logs with ease. It is so completely under the control of the sawyer that he can change the rate of feed almost instantly, from zero to full speed, by an almost imperceptible movement of the lever. Both the column and feed works are mounted on a large, heavy cast iron base plate.

The wheels are nine feet in diameter, a size which tends to greatly reduce the flexure of the saw. The spokes are of $1\frac{1}{2}$ inch pipe, the rims are made of a number of pieces of well-seasoned maple, lap-jointed and put together with screws and bolts in such a manner that it is impossible for them to get out of true. Care has been taken to make them as light as is consistent with great strength. These two points being very essential—strength to enable them

automatically drawn back from the cut and retained in that position until the forward motion of the carriage begins, when it is instantly restored to its exact former position. The advantages of this are obvious—the saw does not scratch the surface of the log while moving back, and the speed of the backward motion can be greatly increased.

The carriage is of well-seasoned yellow pine, made in a first-class manner, and is strongly braced; it is fitted with our improved taper axle trucks with self-oiling bearings. The track is of the T rail pattern; it is accurately planed to fit the trucks and weighs 35 lbs. to the yard.

The head blocks are each made of double wrought iron I beams, planed true and faced with strips of steel which can be renewed when worn. They have very broad heavy knees or standards, to which are fitted our patent champion dogs, for both logs and boards. Each knee is also provided with an independent taper attachment,

A CORRESPONDENT at Morristown, Tenn., writes us that "a large profit could be made by a properly managed land improvement company here at Morristown. This county wants money—wants it badly—a bank with \$50,000 capital here would make from 12 to 15 per cent.; a tobacco factory would pay handsomely; also a furniture factory; a foundry and machine shop; in fact almost anything in the way of manufactures. Strange that men will hoard up money in the North and make nothing out of it when by bringing it here it would bless us and enrich them."

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year, or six months for \$1.50.

"that there has been a great deal of exaggeration about the 'hardness' of the times, at least so far as the South is concerned. That there has been some stagnation in business and some scarcity of money here is true. But there has been no extraordinary number of failures, and no increase of destitution. Profits have been small and wages in some cases have been reduced, but there has been compensation for this in the very low cost of all the necessities of life. We see no signs that more persons than usual are out of employment and learn of no cases of suffering that can be attributed to the condition of business. Upon the whole we believe the people of the South to be in a comfortable and constantly improving condition."

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

Moses Houston, Lewis E. Rafield and Joseph Laurendine have organized to build the Portersville, Bayou La Barte & Turnland Railroad in Mobile county, Ala.

George C. Rogers, Birmingham, Ala., will put \$15,000 worth of machinery into his book bindery and printing house.

C. C. Ellis & Chas. Whelan will erect a \$10,000 building in Birmingham, Ala.

W. H. & J. J. Flower, Greenville, Ala., contemplate building a cotton seed oil mill, and are now investigating the matter.

J. D. Hammond and D. Z. Goodlett are erecting a steam cotton gin at Jacksonville, Ala.

W. H. Forney is making important improvements at his grist and flouring mill, 2 miles from Jacksonville, Ala.

Lerge & Francis, lessees of the Calera, Ala., Iron Works, contemplate adding considerably to their plant.

John Aspinwall, who lately purchased the Mobile Cotton Mills, Mobile, Ala., will, as previously reported, add new machinery.

R. G. Hervey, Sheffield, Ala., who has contracted to build the Sheffield and Birmingham Railroad, writes that he will let contracts for constructing the road as fast as the line is located.

Col. E. Ensley, Pratt Mines, Ala., writes us: "There has been some talk of building a furnace at Sheffield, but so far nothing definite has been said or done."

The contract for building the jail at Montgomery, Ala., previously reported, has been awarded to F. B. & W. S. Hull, of Jackson, Miss.

ARKANSAS.

A company will probably be formed at Hot Springs, Ark., to erect machinery and develop mines near that place.

The Riverton Manufacturing Company, Bear, Ark., expect to put in hoisting machinery, pump, etc., shortly.

Waddel & Eberts are erecting a large ginnery at Altheimer, Ark.

FLORIDA.

There is talk of an ice factory being started at Halifax, Fla.

The Florida Southern Railway Co. (office Palatka, Fla.) have purchased a site in Palatka, Fla., on which they propose to build a large hotel.

The Home Fertilizer Co., Sanford, Fla., will erect new buildings and put in additional machinery to increase their present capacity. G. W. Wyly is president of the company.

The Jacksonville, Tampa & Key West Railroad (office, Jacksonville, Fla.) have secured ground in Palatka on which to build machine shops.

The Palatka, Fla., National Bank will erect a large new bank building.

The Florida Southern Railroad is building a short road from Lochbie to Citra, Fla., about 7 miles.

GEORGIA.

J. B. Knox, Union Point, Ga., whose flour mill was lately burned, will rebuild.

The planing mill previously reported as being built in Poulan, Ga., is being put up by Geo. F. Montgomery, of Vincennes, Ind.

Hardwick Bros., Dalton, Ga., have not definitely decided to move to Cleveland, Tenn., as reported.

The contract will soon be let for a large laboratory for the Macon Medicine Co., Macon, Ga.

Charles Collins, Doctor Town, Ga., contemplates erecting a new saw mill.

The Sawnee Gold Mining Company, Cumming, Ga., have leased the Sawnee mine to a company of capitalists, represented by J. F. Jaques, of Philadelphia. The company will proceed to develop the mine.

Bills have been introduced into the Georgia Legislature to incorporate the La Grange, North & South Railroad Company, the Gainesville & Hall County Street Railroad Company, the Marietta & Austell Railroad Company and Georgia Midland & Gulf Railroad.

The Capital City Street Railroad Co. will be incorporated in Atlanta, Ga., by Jacob Elsas, J. G. Oglesby, John J. Doonan, E. E. Rawson, A. Rosenfeld, John H. Ketner, Walter R. Brown and David Mayer. Capital stock will probably be \$50,000.

Case & Son, Trenton, Ga., have contracted to mine iron ore for furnaces in Tennessee.

The stock company previously reported as being formed in Columbus, Ga., to manufacture barrels, has been organized as the Columbus Barrel Manufacturing Co., with C. A. Hough, president, E. H. Jenkins, secretary and treasurer, and J. W. Burton, manager. Suitable buildings will be erected at once.

J. J. Childs, manager of the Rome, Ga., Gas Company, is having the works remodeled and improved.

It is reported that Mr. Bussey will start a straw hat factory in Atlanta, Ga.

A. J. White has established a gin at Milner, Ga.

J. A. Adams, Atlanta, Ga., has purchased machinery with which to manufacture "Excelsior."

The Georgia Midland Railroad Co., office, Columbus, Ga., have elected W. S. Greene engineer. Surveys will be made at once and construction commenced.

KENTUCKY.

The Hartsfeld Portable Smelting & Mining Company has been organized at Newport, Ky., with C. L. Hartsfeld, president and general manager; W. B. Keim, vice-president; John M. Altenburg, secretary; and George H. Ahlberg, treasurer.

G. Webber, George Gerke and Howard Ferris, of Ohio, and J. A. Scarlett, Casper Heeg and Thomas Jones, of Kentucky, have incorporated in Newport, Ky., the St. Andrew's Bay Railroad Land & Mining Company, to buy and sell land, open mines, construct and operate railroads; capital stock \$450,000.

Philip Klein, of Evansville, Ind., will start a barrel factory with capacity of 500 barrels a day, in Henderson, Ky. The contract for building the factory has been let.

H. W. Longley, Henry Harlick, A. E. Spangler and Albert Bandle have incorporated in Kentucky, the Cincinnati Flying Target Co. to manufacture targets. Capital \$2,000. Principal office to be at Dayton, Ky.

Buchanan & Lidie, carriage manufacturers, Gallatin, Tenn., contemplate starting a branch factory at Scottsville, Ky.

The Louisville Furniture Co., Louisville, Ky., it is reported, will erect a \$12,000 furniture factory.

A. C. Sphar & Co., Maysville, Ky., have received the contract for furnishing brick for the works of the Citizens Gas Light Co., previously reported as to build gas works.

Zachary Newman will establish a cooper shop at Springville, Ky., P. O. at Portsmouth, Ohio.

W. C. Kelly, Louisville, Ky., whose axe and hatchet factory was reported last week as burned, loss \$30,000, will rebuild.

LOUISIANA.

Alex. Theriot & Oscar Lepine have erected a steam rice mill near Raceland, La.

The Union Oil Co., of New Orleans, La., are making improvements at their oil mill in Goulsboro, La.

Hagstette & Coates, New Orleans, La., will put up an engine for power in manufacturing iron safes.

MARYLAND.

J. L. Straus & Bro., Baltimore, have completed their brewery. It is four stories, 90x100 feet, and has an annual capacity of 75,000 barrels.

A steam laundry is reported as to be started at Elkton, Md.

Frank Armstrong has recently opened a granite quarry at Mt. Ararat, near Port Deposit, Md.

The glass works previously reported as being built at Annapolis, Md., are being put up by the Annapolis Glass Factory.

The Maryland Hinge Co., Frederick, Md., are putting in new machinery to increase their capacity.

MISSISSIPPI.

John Davis, Poplarville, Miss., will remove his planing mill to Pionona, Miss.

NORTH CAROLINA.

R. J. Holmes, Salisbury, N. C., has purchased for \$15,000 the Rocky River Gold Mine, in Cabarrus county, N. C.

John Taylor, Davidson county, N. C., intends to erect a sassafras oil mill this fall.

Edward Fowler, of the Webster Mica Company, Webster, N. C., it is reported, will erect three saw mills in Swain county, N. C.

Dr. McNair, six miles from Gibson's Station, N. C., will build a mill for cleaning rice, grinding corn and ginning cotton.

Judge Howards, Tarboro, N. C., is putting the machinery into his new cotton seed oil mill.

SOUTH CAROLINA.

D. H. Gambling & Sons have erected a saw and grist mill at Thickety, S. C.

G. T. Willis & Henry Briggs, Greenville, S. C., are building a cotton gin.

The McCormick Manganese Mining Co., McCormick, S. C., previously reported, will put in machinery for mining manganese.

TENNESSEE.

S. P. Gant, A. A. Campbell and P. B. Mayfield have been appointed a committee by the incorporators of the Western North Carolina, Cleveland & Chattanooga Railroad, (office Cleveland, Tenn.) to negotiate for the construction of that road.

The Gibson-Lee Manufacturing Co., Chattanooga, Tenn., are enlarging their stove foundry.

Winchester & Lyle, Chattanooga, Tenn., contemplate erecting a planing mill.

The Juniatta Marble Co. contemplate putting machinery in their building near Concord, Tenn., to manufacture furniture and polish marble.

Matt. McClung is erecting a corn meal mill at Knoxville, Tenn.

The Columbia Pump Factory, Columbia, Tenn., expect to put another engine in their factory this fall.

The Schuyler Electric Light & Power Co. will be incorporated in Knoxville, Tenn., by C. Powell, S. B. Luttrell, S. P. Evans, B. F. Van Dyke, John C. Houk and others. Work on the plant will begin at once.

Rufus Ingalls, Albert S. Blackman, James Simmons, Amos Rogers, John W. Hoyt and Wm. C. Duxbury have incorporated, in Nashville, Tenn., the United States Dredging & Canal Construction Co. Capital \$5,000,000.

The Lookout Iron Company will increase the capacity and make other improvements at their iron mill in Chattanooga, Tenn.

The Memphis Fertilizer Co., Memphis, Tenn., are preparing to enlarge their factory. New fertilizer factories, it is reported, will be started at Memphis by the Union Stock Yard Co. and the De Soto Oil Co.

J. H. Burnett, Spring City, Tenn., is building his barrel heading factory on Waldens Ridge, Tenn.

The Cedar Bluff Marble Manufacturing & Railroad Co., J. Oebeling Brown, manager, are developing large marble quarries at Concord, Tenn., and will build a three mile railroad.

The American Manufacturing Co., of St. Paul, Minn., previously reported as intending to move South, say they will not do so.

TEXAS.

Thomas Johnston, Houston, Texas, has received the contract for grading the balance of the San Antonio & Aransas Pass Railroad, reported last week as having been let.

A new gas company, capital stock \$175,000, organized by St. Louis capitalists, is contracting for gas works for Dallas and East Dallas, Texas.

The Edison Electric Light Co. will probably erect electric light works in Dallas, Texas.

The East Dallas Water Supply Co. has been organized to build water-works at Dallas, Texas.

Citizens of Henderson, Texas, have raised \$5,000 to assist a company in establishing a foundry.

M. D. Garlington, Dallas, Texas, will build a brick building 50x70 feet, to cost \$10,000.

H. Garipy and B. Snyder are in Dallas, Texas, with a view to establishing a foundry and machine shop to manufacture the Scott Corn and Cotton Planter and Cultivator.

The flour mill previously reported as to be put up in Montague, Texas, will be built by Washington Williams and others.

VIRGINIA.

George C. Moser has prepared plans for a \$50,000 business block in Norfolk, Va., for D. Lowenburg.

J. E. Atwood, Claremont, Va., has purchased a site for a 60-foot iron building to be used as a foundry and for manufacturing purposes.

D. Blauvelt will erect in Claremont, Va., a building for a fruit cannery and broom factory.

LOCKWOOD, GREENE & CO. MILL ENGINEERS

Office, 65 Westminster St., Providence, R. I.

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

Karn & Hickson, Lynchburg, Va., have received contract to erect a tobacco factory, 45x140 feet, for Timberlake, Jackson & Co., of that city.

Hardwicke & Mitchell, Richmond, Va., whose planing mill has been burned, will rebuild at once.

It is rumored that several parties contemplate purchasing the water power at Miller's Iron Works, Stribbling Springs, Va., with a view to the erection of large woolen mills.

Mr. Driver, near Stribbling Springs, Va., has erected machinery for manufacturing barrel staves.

WEST VIRGINIA.

The Ocean Mining Company has been incorporated in West Virginia, by John Wilson and H. C. Black, of Baltimore, Md., John Sheridan and P. E. Haldeman, of Piedmont, W. Va., and R. W. Wilson, to mine coal and manufacture coke; capital not to exceed \$50,000. Principal office to be in Baltimore, Md.

BURNED.

Saw mill of J. A. Jackson, Paris, Tenn.

The machinery of the compress at the National Compress Works, Norfolk, Va., has been damaged by explosion.

A. Feagan's brandy distillery, near Pedlar Mills, Va.

The mill of A. G. Mercer, 8 miles from Greenville, Ky. Loss \$2,000.

The Scottsboro, Ala., Hub, Spoke and Fel-loe Factory. Loss \$30,000.

James A. Lewis's Cotton Factory, Columbus, Ga., operated by Harris & Bowland, lessees. Loss \$6,000.

The planing mill of Mitchell & Hardwicke, Richmond, Va. Loss on machinery \$10,000. Will rebuild.

Keaton's saw mill, 4 miles from Milan, Tenn. Loss \$1,500.

Saw mill of Henry Otis, Tchoupitoulas street, New Orleans, La. Loss \$30,000, fully insured.

The steam shingle mill of Ryan & Geary, Lake Charles, La. Loss about \$10,000.

George B. Hack's saw mill, Pendavis, Ga., damaged by boiler explosion.

Lookout Iron Company.

CHATTANOOGA, TENN., Sept. 12th, 1885.
Editor Manufacturers' Record:

Since beginning operations in July, we have been very fortunate in working up a fine business, so that now we have more orders than we can easily fill. Are enlarging our works somewhat, putting in new furnace and adding about six tons to output of our mill. We are also considering taking up and building a spike machine by a new patent, which, if it proves a success, we may operate largely.

J. W. HAZLEHURST, Vice-President.

Gold Mining.

OPHIR, GA., Sept. 10, 1885.
Editor Manufacturers' Record:

We have been increasing our facilities for reducing ore and are putting in new concentrator. The "Charles" Mine, near us, is also about ready to start up new machinery for the reduction of gold ore.

FRANKLIN & McDONALD MINING CO.,
A. H. MOORE, General Manager.

Rebuild Flour Mill.

UNION POINT, GA., Sept. 11, 1885.
Editor Manufacturers' Record:
My flour mill was burned out on the 3d inst. I expect to rebuild soon. I. B. KNOX.

SCOTT'S HILL, N. C., Sept. 11, 1885.
Editor Manufacturers' Record:
My saw mill was destroyed August 25th. The building was 25x80 feet, two stories. I am now repairing and hope to be at work soon. W. P. POPE.

MINING NOTES.

By BRUNER & EAMES, Salisbury, N. C.

NORTH STATE GOLD & COPPER MINING CO.

At the North State Gold and Copper Mine, in Guilford county, work is being pushed with considerable vigor. The main shaft has reached a depth of 320 feet. They are hoisting a complex sulphide ore—iron and copper pyrites—which carries a fair percentage of gold. They are also opening an old shaft, sunk probably before the war. They have a twenty-stamp mill for reducing the ore.

In addition to the development going on in shaft mining, they are also engaged in washing the surface of a shallow gulch near the main shaft. They have a small hydraulic plant which is not very effective, because there is not sufficient natural fall to enable them to operate successfully with the machinery engaged. The surface is said to contain free gold enough to pay a profit for working, could it be done at a cost not exceeding the present outlay. They are using the water forked from the mine for this hydraulic experiment.

AN IMPORTANT MOVEMENT.

To revert to the subject briefly touched last week, regarding the work that Mr. John Jacobs, of the Yadkin Mining & Milling Company, is inaugurating here, too much cannot be said. For a long time those interested in mining have been begging for a process, or metallurgical works, for the reduction of sulphide and refractory ores. While Mr. Jacobs' plan does not fully meet that demand, it will practically accomplish it so far as the higher grade ores are concerned. He proposes to buy outright such ores as he desires to work. He has visited many of the localities and has determined to buy by assayed samples. Prof. Geo. B. Hanna, of the Charlotte mint, or some other reliable and accurate assayer, will do the assaying—this, of course, to satisfy those from whom the ores are bought. A reliable assayer is connected with the company.

These ores are to be worked by the Davis chlorination process, a process which has been used by the Yadkin Gold Mining & Milling Company successfully in the treatment of the Reimer sulphide ores. It is a kindred process to the Meares process, differing in the final precipitation of the gold—the Davis precipitating on charcoal.

Mr. Jacobs will begin work in about ten days. The reason of the delay is to enable him to get a good supply of ore on the dumps.

Salisbury is a favorable location for building works of this character, because it is about the center of the North Carolina "gold belt," a territory reaching from Greensboro to the South Carolina line. Within fifty miles, or, say within a radius of fifty miles, with Salisbury as a center, the circumference would include nearly every important locality where precious metals are found, and, not only so, but the bulk of the copper, iron and gem producing districts; so that so far as location is concerned, there is every advantage. Another fact worth mentioning is that Mr. Jacobs has no process to advertise or sell. He is simply doing a legitimate business, the results of which must accrue to both himself and the vendors of the ores.

There is yet a great need for suitable reduction works for the treatment of the low grade sulphide ores, which exist in immense masses and which are now being thrown away. After being treated for the free gold that is disseminated through the mass, the sulphurets are thrown away; and it often happens that the most valuable part of the ore goes into the slimes or tail race. At Gold Hill, for instance, there is a large quantity—hundreds of tons—of tailings assaying from \$3 to \$20 per ton. And there are many other localities where such material is abundant. It should be used, and there is but one way to do it, and that by a local metallurgical establishment—the

value of the material being too low to justify clipping.

HENDERSON COUNTY GOLD VEIN.

Dr. C. D. Smith, the trans-mountain mineralogist, has been doing some expert work in Henderson county. He reports that near Boylston post office there is a vein of mineral from four to six feet wide and traceable for half a mile by easily identified outcrops. The vein carries free gold on the surface, but at the depth of fifteen feet sulphurets and galena make their appearance on either side of the lode. It will be developed sufficiently to determine its value at an early day.

UNION COUNTY.

At present all the mines in Union county are idle. Preparations are being made at the "Altan Mine" (formerly the "Belk") to begin work soon, and there is also a prospect for other mines being opened this winter.

This county has produced largely in the past, and, with careful management, there are several mines in the county that should be paying dividends to-day. The "Crump Mine" has a good record for producing extraordinarily fine specimens of free gold—pieces taken from the vein weighing as much as two pounds.

ROCKY RIVER MINE.

This valuable property, situated in Cabarrus county, was sold on the 7th inst. at public vendue, in the town of Concord, by order of court, to justify a judgment in favor of R. J. Holmes and others against J. J. Newman, Judge Hughes and others. It was sold in three tracts, all, however, known as the Rocky River Mine, and brought respectively two, five and eight thousand dollars—\$15,000 for the property. It was bought by R. J. Holmes, Esq., of Salisbury.

THE PHOENIX MINE

has been obliged to close down temporarily for want of water. This mine has been in successful operation for several years. They are working a high grade sulphide ore by the Mears chlorination process.

Mining bids fair to be active in Cabarrus county this fall.

Enlarging Capacity.

FREDERICK, MD., Sept. 11, 1885
Editor Manufacturers' Record:
We are enlarging our capacity by putting in additional machinery.

MARYLAND HINGE CO.

Manganese Property.

SHENANDOAH, AUGUSTA CO., VA.,
September 9, 1885.
Editor Manufacturers' Record:

I own a farm that has (it is thought) a large body of manganese on it. It was tested in 1859 by sinking a shaft 43 feet, out of which was taken 250 tons of first-class manganese. It is now sold to M. P. Ohern, of your city. The contract to be closed on or before the first of November next.

DANIEL HEISERMAN.

A Barrel Factory.

SPRING CITY, TENN., Sept. 9, 1885.
Editor Manufacturers' Record:
I am now establishing a barrel heading manufactory on Walden's Ridge, in Swagerty's Cove, near the junction of Tennessee & Sequatchee Valley Railroad.

J. H. BURNETT.

A Carriage Factory.

EUFAULA, ALA., Sept. 9, 1885.
Editor Manufacturers' Record:
I am building carriage works 30x125 feet, two stories, brick, with addition 22x44 feet, 1 story, brick. Cost of building \$4,000. Ground, 70x120 feet, \$3,000. Total \$7,000.
T. PRUDDEN.

A Shoe Factory.

HARRISBURG, VA., Sept. 11, 1885.
Editor Manufacturers' Record:
I have just purchased nearly all the necessary machinery for the manufacturing of boots and shoes, and expect to have everything in full operation in a very short time.
I. W. TALIAFERRO.

Will Put in Machinery.

BEAR, ARK., September 5, 1885.
Editor Manufacturers' Record:
Our company is organized in Riverton, Neb. Will put in hoisting machinery and pump in short time; engine 20 horse power; expect to matt our own ores; cannot tell particulars yet. We expect to work in a way which will be new for Arkansas.
RIVERTON MINING COMPANY,
W. C. THOMPSON, Supt

An Overcrowded Cotton Mill.

MOBILE, ALA., Sept. 7th, 1885.
Editor Manufacturers' Record:
I purchased a mill in May and started operations in July; have added no new machinery to mill yet, but propose doing so in future; have 2,000 spindles turning out yarns, warp, twine and cotton rope. At present demand greater than supply.
JNO. ASPINWALL.

Building a Glass Factory.

ANNAPOLIS, MD., Sept. 8th, 1885.
Editor Manufacturers' Record:
The Annapolis Glass Factory is in course of construction at "Horn Point" opposite Annapolis. Five thousand dollars have been subscribed. It will be a tank furnace. About sixteen glassblowers will be employed. It is not definitely settled when the works will be put in operation. T. G. TAYLOR.

Sheffield's Railroad.

SHEFFIELD, ALA., Sept. 9, 1885.
Editor Manufacturers' Record:
I have purchased the Sheffield & Birmingham Railroad, on which 15 miles of track is laid south of this place; intend pushing it through to completion as rapidly as practicable. My engineers are now locating line. Will let contracts as fast as line is located.
R. G. HARVEY.

Will Rebuild Planing Mill.

RICHMOND, VA., Sept. 11th, 1885.
Editor Manufacturers' Record:
We will commence to rebuild at once, and hope to be in full operation in a short while as only about one-half of our place was burned. HARDWICKE & MITCHELL.

To Build A Flour Mill.

MONTAGUE, TEXAS, Sept 10, 1885.
Editor Manufacturers' Record:
A fine flouring mill is to be erected here by Washington Williams and Mr. Hardy, wealthy men—the mill will cost \$30,000.
JAS. M. GREGSBY.

A Corn Mill.

KNOXVILLE, TENN., Sept. 12, 1885.
Editor Manufacturers' Record:
I am erecting a mill to cost complete about \$4,000. Will grind corn meal on fine roller mill, made at Dayton, O. Will grind 20 bushels per hour. Will also make a specialty of grinding mixed feed for cattle, horses, &c., and cook the same by means of machinery made specially for this work. Mill is 30x60 feet and three stories. Machinery run by 30 horse-power engine. This is a new enterprise for this section.
M. MCCLUNG.

Building a Grist Mill

PROSPECT, MD., Sept. 9, 1885.
Editor Manufacturers' Record:
We are building a new grist mill—expect to have it completed by November—with three runs of burs, two turbine wheels, 21 feet of head and fall, situated on "Deep Run," owned and run in the name of Enfield, Day & Co. This location has been used for a number of years for saw and chcp mill, and has done a good business. JOHN R. DAY.

Improved Spooler.

To obtain the best results in the process of spooling cotton yarns, it is of the utmost importance to have the best machines—that is, those that will build a hard, even spool with the least possible injury to the yarn and bobbins, that are conveniently operated and that need the least repairs. The necessary outlay for spoolers in a mill being less than two per cent. of the total cost of the machinery, a slight difference in their cost is of little importance, if the machine which costs most is the best.

The strain on the yarn in spooling is very trying at best, and in order that this strain may not so stretch it as to take out its elasticity and render it liable to break in the loom, it is very important that the upright spindle carrying the spool should have the steadiest and smoothest motion possible.

Of the Sawyer spindle, the manufacturers say:

"It is well known that the best form of spindle running in fixed bearings is the Sawyer, and we have applied the principle of the Sawyer spindle to the upright spindle of our spooler, together with the best forms of step made, and thus get the very best results in steadiness of running and durability; also in saving power and oil.

We are the only builders of spoolers with this style of spindle. We have adopted and patented a positive traverse motion, a very simple and convenient arrangement of the mangle motion, making a straight spool slightly rounded at the ends, containing the maximum amount of yarn with minimum weight of spool itself—an important point, as it saves much breakage in warping.

A number of manufacturers have had our motion applied to their spoolers (made by other builders), at an expense exceeding 20 cents per spindle. This form of traverse motion is peculiar to our machine. An even tension on the yarn is next in importance to having the spindle carrying the spool run steadily, and the most perfect contrivance for obtaining this is the Wade Bobbin Holder, of which we control the patent.

We also have a patent for applying the bobbin holders to spoolers on a round rod, which is such an improvement on the ordinary method of application, that manufacturers pay twelve and a half cents per spindle in addition to the price of the bobbin holder, to have it applied in this way to old spoolers.

We make no extra charge for this improvement on new spoolers. We do not believe in 'doing the carding at the spooler,' as many of the imperfections in yarns are preferable to as many spoolers' knots, but bunches of all kinds should be removed by the thread guide in spooling.

The Northrop Spooler Guide which we introduced about one year ago has proved to be a most satisfactory attachment. Nearly 20,000 have already been sold. The yarn is carried from the bobbin holder or spindle over a polished iron rod of comparatively large size, which gives a large bearing surface, preventing any liability to wear so as to cut or break the yarn. To this rod the guide proper is fastened with screws, which also serve as adjusting screws for setting the two parts of the guide for different numbers of yarn. Wherever the yarn may be dropped after tying, it immediately enters the guide and cannot jump out. The guide is most simple in construction—has but two parts, which are attached as a clamp to the round

rod with two screws. This method of attachment prevents the guide from closing up when once set. Such an accident as dropping a spool on to them would be harmless. To make the opening through which the thread runs either wider or closer, one screw must be loosened and the other tightened. The opening cannot possibly be wider at one end than at the other, as is the case with other guides having horizontal openings.

Our spooler has an iron frame throughout, a feature which, original with us, has been copied by other leading shops, and for simplicity, good workmanship and durability, cannot be excelled. Large numbers are in use, giving perfect satisfaction. No other parties can build spoolers combining so many valuable improvements."

For further particulars address the manufacturers, Messrs. George Draper & Sons, Hopedale, Mass.

Virginia's Tin Mines.

About two years ago a startling announcement was made that very rich deposits of tin ore had been discovered in the Blue Ridge mountains. Prospecting began at once, and it was found that the ore belt extended several miles in a northwest and southwest course, and was a mile or more in width. The principal body of the ore, so far as known, is in the high ridges or moun-

from 150 to 200 feet. Here the vein is from four to ten feet wide, and runs as high as 60 to 70 per cent. of metallic tin—the average percentage as per analysis between the walls is 31 per cent.

About three-quarters of a mile from the above-mentioned deposit, in a southwesterly direction, three other openings have been made near together. These openings are near the summit of a high ridge, on the opposite side of the little stream from the one first described. Whether the two have any close connection has not yet been determined. One of these openings on the ridge shows a section of what appears to be a regular vein of very pure tin-stone about two feet wide. A trench has been cut across the vein to a depth of several feet and about three feet wide, which shows on that much of the vein in length. But the two other openings also show ore of the same character and equally rich, thus proving that the vein extends considerably beyond the first trench, though it may not be a continuous or unbroken one. The evidence is conclusive that there is a valuable deposit of rich tin ore, and that the quantity is considerable. Some of the specimens from this deposit, I am informed, yield very nearly or quite 70 per cent. of metallic tin, but I have no information as to the average yield of the whole mass of the ore. These deposits are on what is known as the Cash

this is not the case. These veins vary in width from a few inches at the surface to about ten feet, and are generally nearly vertical. The ore yields in the laboratory from a trace to 3¼ per cent. of metallic tin.

Mount Maria is 300 to 400 feet above Irish creek, on the southeast or left bank of Irish creek, running back to the summit of the mountain, on that side, coterminous with the line of the Cash tract; and across the summit, extending in a southwesterly course for about one and a half miles, is another section of this block. This tract approaches to within 250 yards of the second opening described above on the Cash land, and the veins found there must project into it. This whole section, covering about 900 acres, is one high mountain, the summit of which is, by barometric measurement, 700 feet above the level of the creek, and the ore crops out of both sides of it through the whole extent. A vein four feet wide has been opened on this tract, about fifty feet from the Cash line, and in the direction of the openings there made.

About 300 yards further, in the same (southwest) direction, another vein has been opened which is about one foot wide at the surface. In a spur, or ridge, running toward the creek, a little to the north of the veins above mentioned, three parallel veins and one cross vein have been discovered and opened, while several others have been located but not opened. On the southwest side of Big Hill there is a beautiful site for concentrating smelting works with water power into the creek.

It may be safely said that large and rich deposits of cassiterite as well as tinstone will be found in the localities described. The rare metal is present and has been extracted from the ore. It is in the true formation—Laurentian granite. About 200 tons have been raised and are now on the ground. Some shipments have been made to England, there to be smelted. But works for this purpose will be erected on the spot.—Philadelphia Record.

Law Department.

Edited by B. HOWARD HAMAN, Attorney at Law, Baltimore, Md.

It is the province of this Department to reply to enquiries that may be made by our patrons respecting the legal aspects of any matter that may arise in their business. Any questions as to doubtful points of law will be answered without charge in this column. All questions submitted must be accompanied by the name and address of the sender, not however, for publication. Letters should be addressed, Editor Law Department, MANUFACTURERS' RECORD.

BALTIMORE, September 11, 1885.

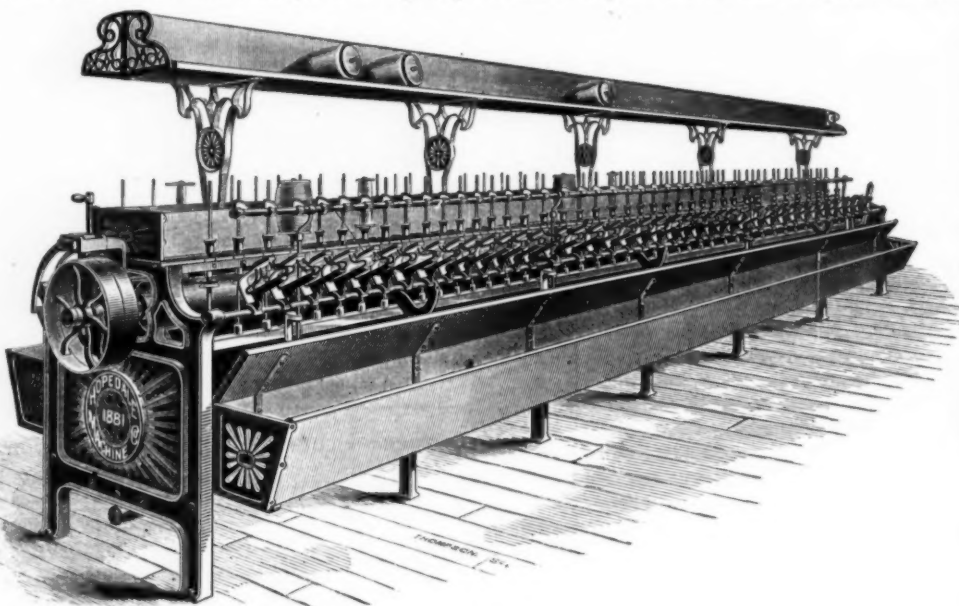
Dear Sir—Please inform me through the columns of your paper how long a mortgage is good without being recorded in Maryland? Also, if a person should buy property on which there is an unrecorded mortgage, whether he could get a title to it as against the party holding the mortgage?

Reply—to first question. A mortgage of personal property, i. e., goods and chattels, is good for sixty days; of real property, that is lands, houses, and the like, is good for six months. To second question. The person who purchases the property subject to the unrecorded mortgage would own it absolutely, against the mortgage, if he paid for it and took possession of it. A judgment creditor would, however, have no right to it against the mortgage under the same circumstances.

MACON, GA., September 10, 1885.

Dear Sir—I have read with much interest your replies to legal conundrums through your law department, and would like to put one myself. Can a man lawfully insure the life of his partner, or would this not be called a gambling contract? What is meant by the term insurable interest?

Reply—An insurable interest is such an interest in the life of another as the law regards a financial interest. A creditor has an insurable interest in the life of his debtor, a father in that of his child, a woman in the



IMPROVED SPOOLER.

tain sides of Irish creek, in Rockbridge county, about eighteen miles from Shenandoah Valley railroad, at Vesuvius depot, and twenty miles from Lexington. Irish creek is a bold, rapid stream, affording a never failing and abundant supply of water. The fall is so great that the water can be utilized again and again at short intervals. There are several saw and grist-mills which now derive their motive power from this stream. The valley of the creek, though narrow, affords plenty of space for the erection of stamping mills and other machinery required in concentrating the tin ores preparatory to their being put into the smelting furnace. The mountain sides are covered with a heavy forest growth, and will furnish an abundant supply of timber for mining purposes, as well as charcoal. The mountains on both sides of Irish creek rise to a height of from 300 to 1,000 feet above the level of the stream, and are generally very precipitous. The soil on these mountain slopes is wonderfully rich, producing without fertilizers large crops of the finest tobacco, corn, wheat, rye, oats and potatoes. A shaft has been sunk about twenty or thirty feet above a small branch of Irish creek. Here the ore appears in the form of a pure and rich cassiterite, narrow veins of which permeate the whole formation to a width of some forty feet or more. Near the top of the mountain a shaft has penetrated the deposit about fifty feet, and a draft has been driven

tract, which is controlled by Edgar Whitehead, Mr. Henly and Mr. Massie, all of Amherst county, Va.

Immediately adjoining the Cash property, from the summit of the mountain down to the creek, and across it to the summit on the other side, in a southwesterly course, are the Grant and other lands, which have been extensively prospected by the Robertson Brothers, of Lynchburg. These lands, covering about 1,000 acres, reach entirely across the tin belt so far as it is known to exist. In one section of this block, on the northwest side of Irish creek, known as Mount Maria, embracing about sixty acres, eighteen distinct veins have been opened, in all of which the ore has yielded more or less of tin. Most of these veins have been traced for the most part of the entire distance across the mountain from base to base, and several of them have been opened by cross trenches, shafts or tunnels at a number of points. On one of these a tunnel has been run to the extent of eighty feet.

The geological formation and character of the veins lead to the belief that many of them will come together not far below the surface, and indicates the presence of large bodies of valuable ore at no great depth. Under similar conditions in Cornwall and other tin mines such a result is always looked for. Where these veins come together it is expected to find large bodies of rich ore, and it is a rare exception when

Galvanized sheet is quite active, as prices are recognized to be low. The season of greatest consumption is right on us, and we don't expect to see any retrogression of fig-

PARKER GAS ENGINE.

Guaranteed to Run with Less Gas than Any Other Gas Engine Known.

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No Boiler.

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Simple.

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Sibley Mills, Augusta, Ga.

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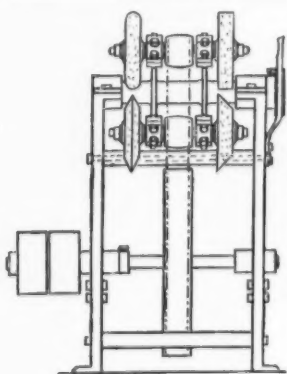


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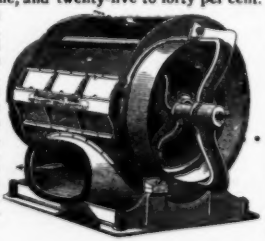
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This Cupola has made a great revolution in melting Iron. It differs from all others in having a CONTINUOUS TUYERE, or in other words, the blast enters the fuel at all points. Above one ton capacity per hour, they are made oval in form. This brings the blast to the center of the furnace with the least resistance and smallest possible amount of power, and in combination with the continuous Tuyere causes complete diffusion of the air throughout the furnace, and uniform temperature, melting ten or fifteen tons an hour with the pressure of blast required to melt two or three tons in an ordinary Cupola. It also enables us to save very largely in time and fuel, the experience of our customers showing a gain of twenty-five to fifty per cent. in time, and twenty-five to forty per cent. fuel over the ordinary Cupola, and a BETTER QUALITY OF CASTING, especially in light work. This is due to the thorough diffusion of the air and more perfect combustion, extracting less carbon from the iron, making a softer and tougher casting.

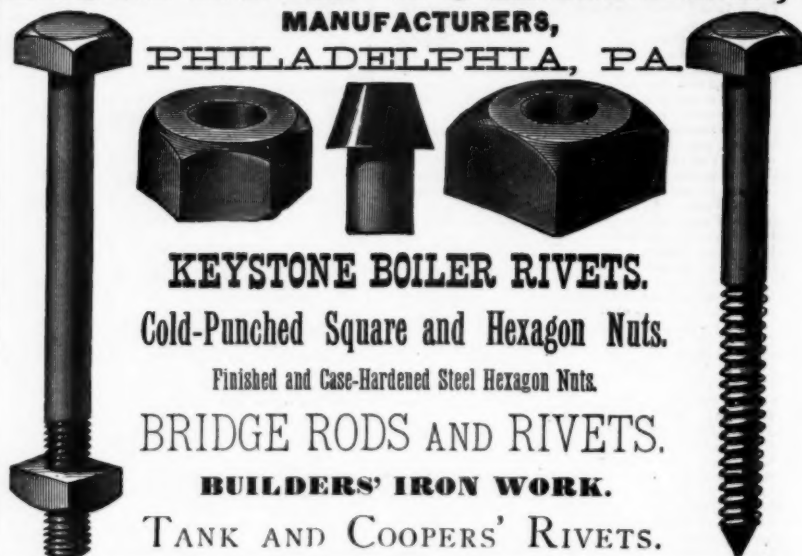
We manufacture these Cupolas of any desired capacity, numbered from 1 to 30, inclusive, the numbers indicating the melting capacities in TONS PER HOUR—No. 1, one ton; No. 2, two tons; No. 3, three tons per hour, and so on up to 30, or 30 tons. We have improved the construction of these Cupolas in every way, have increased their strength and durability, and sought to make them as convenient for working and repairs as our own and the experience of our customers could suggest.



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Starts with Ease.

Receives an Impulse
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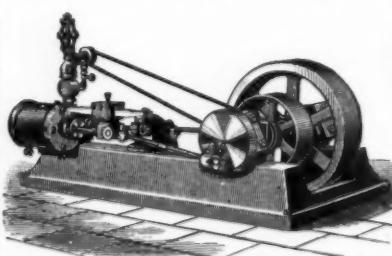
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A simple, compact, thoroughly well made,
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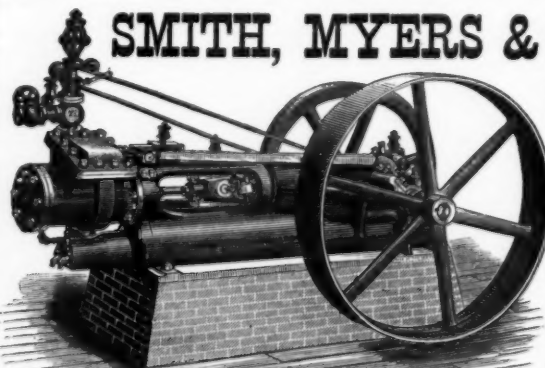
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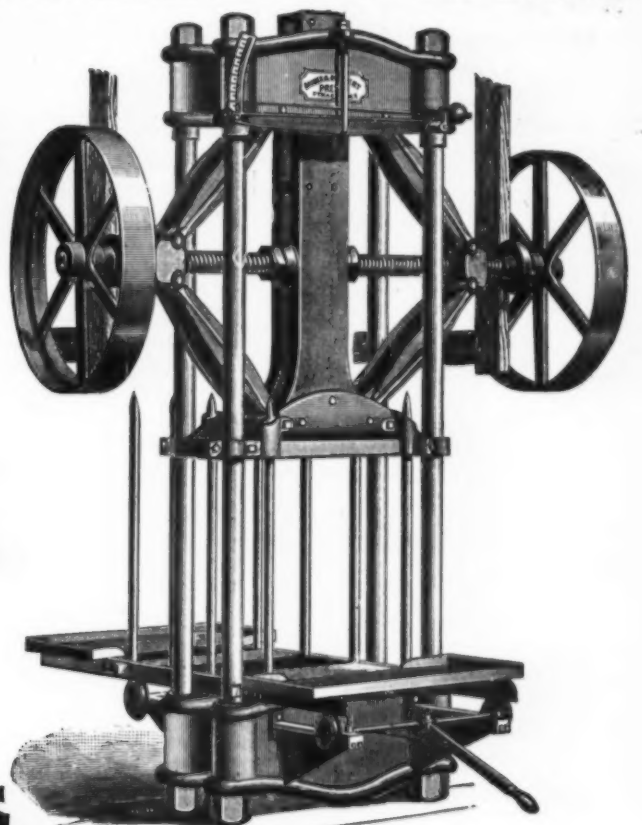
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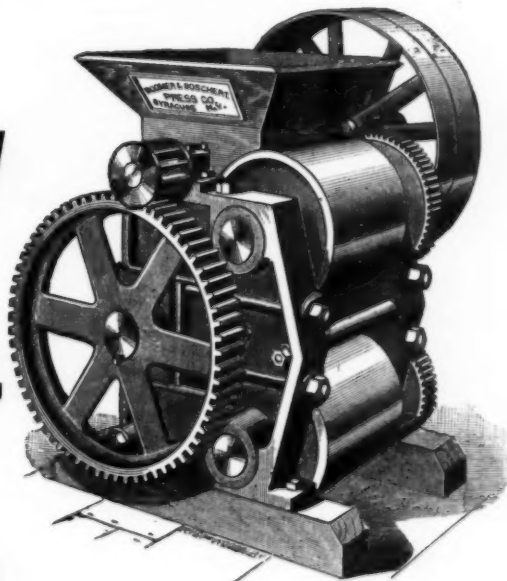
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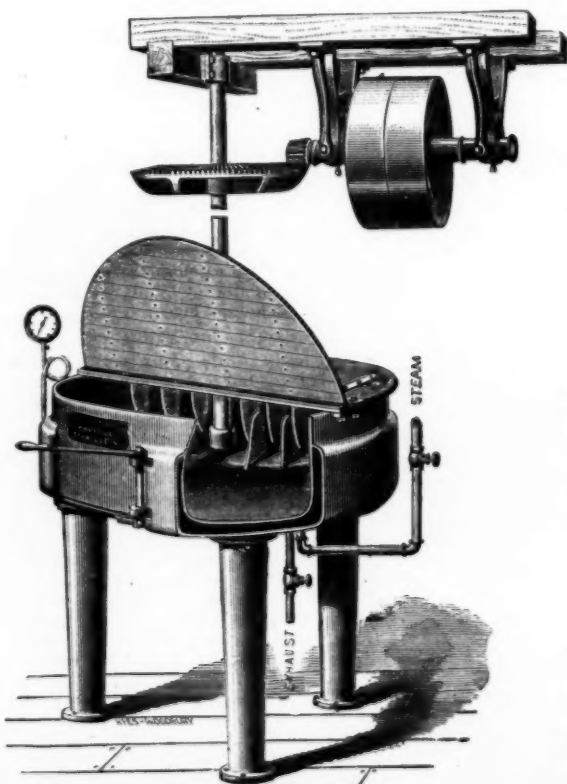
are very heavy and durable. Any pressure may be obtained by means of the 4 bolts drawing the center roll against the other two.

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This is steam jacketted, both on sides and bottom, and is fitted complete with Hangers, Pulleys, Gears, Valves and Gauges, and of size suitable for the work desired.

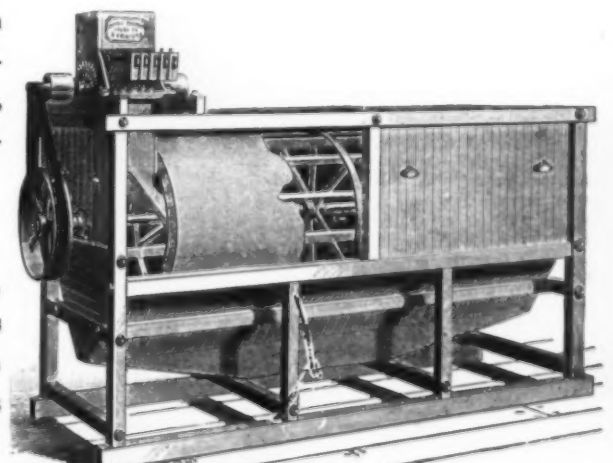
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Our Huller is of a new pattern, and very effective, and leaves the hulls and meats in the very best possible condition for an easy and perfect separation.



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Our Press is very Heavy and Powerful. It has 24 Plates, 12 of which are under pressure while the others are being laid up. The Platform of the Press is Double, and can be moved back and forth on the rollers, thus enabling the operators to prepare one set of plates while the others are under pressure; thereby effecting a considerable saving of time. It is run by belts passing over the pulleys on the ends of the screw to a countershaft not shown in this cut. Size of cake 10x28 inches.



Small Combined Huller and Separator for Plantation Use.

COTTON SEED OIL MILLS.

An Increase Since 1880 of 106 Mills and \$7,287,950 in the Manufacture of Cotton Seed Oil.

The Growth of a Comparatively New Industry.

There is probably no industry in the South that has developed more rapidly during the last five years than the manufacture of cotton seed oil. It was not many years ago that cotton seed were regarded by many planters as a great nuisance, but now they are the object of sharp competition between many buyers anxious to secure them. Cotton seed is indeed a wonderful product, but its value has only been appreciated of late years. Prof. Myers, of the Mississippi Agricultural and Mechanical College, in an address upon cotton seed, said: "And now, in conclusion, there is no agricultural product known to your speaker that has a value equal to this in almost any place that you can put it. You may take its hulls and use them for cattle feed, for fertilizers, and for fuel. The kernel you may use as a feedstuff, a fertilizer or substance from which oil may be obtained. The oil is one of the best culinary articles, is of extensive use in pharmacy, and of almost unlimited application to the arts. It makes little difference whether you buy it as butter, as lard, as lubricating oil, or olive oil; whether you apply it as a salve, a pomade or a soap, it is good, and good everywhere."

It has been stated that cotton seed oil first appeared in commerce in 1852, when some of it was received in France from Egypt. In this country the manufacture of this oil has now become a very important industry, the number of mills engaged in the business in the South having increased from 40 in 1880, to 146 at the present time. Prior to this large increase in the number of mills, the manufacture of cotton seed oil yielded profits that were extremely gratifying to those who were fortunate enough to be interested in it. Like all other industries, however, in which big profits are made, there has been a disposition during the last few years to overdo the business by the erection of too many mills. The natural result has been that the production of oil has increased more rapidly than consumption, and prices have largely declined. It has also resulted in the erection in some localities of more mills than are required to crush all the seed produced in adjacent territory, thus necessitating the closing of the mills for a considerable period each year, owing to the inability to secure seed. There are, of course, some sections in which mills are really needed so as to furnish a market for the seed, but on the whole, it would probably be best to move slowly in the erection of new mills until the consumption of the oil increases. The market for this oil is steadily widening as its many good qualities become known, and in time the demand at good prices will probably fully equal the limit of supply, as it is an article the manufacture of which cannot be indefinitely increased.

With a view to showing the great increase in this business since 1880, we have compiled, through correspondence with all the mills in the South and by other means, some interesting figures. The census of 1880 gives us the statistics of this industry for that year. The number of mills in the South, and the amount of capital invested in 1885, as compared with 1880, are as follows:

	1885.		1880.	
	No. of Mills.	Capital.	No. of Mills.	Capital.
Alabama.....	18	\$810,000	2	\$82,000
Arkansas.....	12	1,501,250	4	275,000
Florida.....	3	75,000	..	.....
Georgia.....	16	915,000	..	.....
Louisiana.....	16	1,840,000	12	1,557,300
Mississippi.....	21	1,817,000	8	450,000
North Carolina.....	9	275,000	..	.....
South Carolina.....	7	299,700	..	.....
Tennessee.....	17	1,731,500	9	935,000
Texas.....	27	2,128,000	4	302,000
Virginia.....	..	.....	1	3,000
	146	\$10,792,450	40	\$3,504,500

The increase in the number of mills and in the capital invested has been as follows:

STATES.	NO. OF MILLS.	CAPITAL.
Alabama.....	16	728,000
Arkansas.....	8	1,226,250
Florida.....	3	75,000
Georgia.....	16	915,000
Louisiana.....	4	282,500
Mississippi.....	13	767,000
North Carolina.....	9	275,000
South Carolina.....	7	299,700
Tennessee.....	8	796,500
Texas.....	23	1,926,000
	107	\$7,290,950
Less, decrease in Virginia.....	1	3,000
Net increase.....	106	\$7,287,950

The growth of this industry is an illustration of the development of the manufactures of the South. From 40 mills, employing \$3,504,500, this business has increased to 146 mills, having a capital of \$10,792,450, or, in other words, it is now more than three times as great as it was in 1880. According to these figures the number of mills shows a slightly larger rate of increase than the amount of capital, the average capital per mill in 1880 being \$87,612, and at present \$74,947. This is probably due to the erection of a number of small mills, costing from \$15,000 to \$30,000, during the last few years. It is also possible that our figures giving the capital at the present time do not fully represent the amount of capital invested in the business; for, while some of the mills have a larger capital stock than the amount of cash actually invested, yet many others have, out of their profits in times past, enlarged their mills, increased their capacity, and in some cases, we believe, built new mills, without making any additions to their capital stock.

The largest capital of any one company is \$506,250, and the next largest \$500,000 both of which are fully paid up.

The preceding statistics show that in Florida, Georgia and North and South Carolina, this industry has been created since 1880, neither of these States having a single cotton seed mill in that year. The greatest increase has been in Texas, where 23 mills and \$1,926,000 have been added. Arkansas is second in the increase in capital, but Alabama and Georgia are ahead of that State in the increase in the number of mills. The aggregate increase in the business has been 106 mills, and \$7,287,950.

The following list, compiled with much care, gives the name and address of all the cotton seed oil mills in the South:

ALABAMA.		
LOCATION.	NAME.	CAPITAL.
Demopolis, Demopolis Oil Company.....		\$100,000
Eufaula, Eufaula Oil Company.....		100,000
Eutaw, G. Braune.....		..
Huntsville, Huntsville Cotton Seed Oil Mills..		..
Marion, Marion Oil Mill.....		..
Marion, Smith & Sharp.....		..
Mitchell Station, Belser & Parker.....		..
Mobile, Mobile Oil Mills.....		..
Montgomery, Union Refining Company.....		30,000
Montgomery, Alabama Oil Company.....		50,000
Montgomery, Montgomery Oil Works.....		50,000
Newbern, Newbern Oil Company.....		..
Opelika, M. T. Trawick.....		..
Selma, Central Oil and Fertilizer Works.....		..
Talladega, Talladega Oil Mill.....		..
Tuscaloosa, Tuscaloosa Cotton Seed Oil Co.....		45,000
Union Springs, Union Springs Oil Co.....		20,000
Uniontown, Canebrake Oil Mill Co.....		5,000
ARKANSAS.		
LOCATION.	NAME.	CAPITAL.
Brinkley, Brinkley Oil Company.....		\$80,000
Fort Smith, Fort Smith Oil Mills & Com- press Company.....		150,000
Helena, Anchor Oil Company.....		120,000
Helena, Helena Oil & Compress Co.....		100,000
Little Rock, Little Rock Oil & Compress Co.		506,250
Little Rock, Eureka Oil Company.....		175,000
Little Rock, Texarkana Oil & Man'g Co.....		150,000
Newport, Newport Oil & Manufacturing Co.....		50,000
Pine Bluff, Emma Oil Company.....		20,000
Pine Bluff, C. M. Neel.....		..
Texarkana, Arkansas Oil Company.....		..
Texarkana, Texarkana Oil & Man'g Co.....		..

FLORIDA.		
LOCATION.	NAME.	CAPITAL.
Lloyd's, W. L. Bond.....		..
Madison, Madison Cotton Ginning Co.....		..
Mikesville, G. M. Whetstone.....		..

GEORGIA.		
LOCATION.	NAME.	CAPITAL.
Albany, Albany Oil Company.....		\$60,000
Americus, Americus Oil Company.....		25,000
Athens, Oliver McIlhenny.....		..

Atlanta, Atlanta Cotton Seed Oil Mills.....	100,000
Augusta, Augusta Oil Company.....	..
Barnesville, A. O. Murphy & Co.....	..
Columbus, Muscogee Oil Company.....	100,000
Dawson, Dawson Oil Company.....	..
Elberton, Cotton Improvement & Oil Co.....	25,000
Hawkinsville, Hawkinsville Oil Company.....	200,000
Hogansville, Cotton Improvement Co.....	20,000
Macon, Macon Oil & Fertilizer Company.....	150,000
Newnan, McBride & Stevens.....	..
Rome, Rome Oil Mills & Fertilizer Co.....	100,000
Thomasville, Thomasville Oil Company.....	25,000
Waynesboro, Waynesboro Cotton Seed Oil & Fertilizer Company.....	..

LOUISIANA.		
LOCATION.	NAME.	CAPITAL.
Baton Rouge, Baton Rouge Oil Works.....		\$50,000
Gretna, Union Oil Company.....		..
Monroe, Monroe Oil Company.....		100,000
New Iberia, Gates & Barnard.....		..
New Iberia, New Iberia Oil Works.....		..
New Orleans, Union Oil Company.....		..
New Orleans, American Cotton Oil Co.....		50,000
New Orleans, Louisiana Oil Company.....		200,000
New Orleans, Maginnis' Oil & Soap Works.....		..
New Orleans, Planters' Crescent Oil Co.....		500,000
New Orleans, Bienville Oil Works Co.....		155,000
New Orleans, Carrollton Oil Works.....		..
New Orleans, Chalmette Mills.....		200,000
St. Martinsville, St. Martinsville Cotton Seed Oil Mills.....		..
Shreveport, Shreveport Oil Mill.....		..
Washington, Pelican Oil Mills.....		..

MISSISSIPPI.		
LOCATION.	NAME.	CAPITAL.
Aberdeen, Hope Oil Mills, Compress & Man'g Co.....		\$50,000
* Aberdeen, Aberdeen Fertilizer Oil & Man'g Company.....		50,000
* Aberdeen, Aberdeen Oil Mills.....		25,000
Canton, Madison Oil Mills.....		20,000
Clarksdale, Sun Flower Oil Company.....		..
Columbus, Columbus Oil Mill.....		100,000
Friar's Point, Friar's Point Oil Mills.....		..
Friar's Point, Sun Flower Oil Company.....		..
Greenville, Greenville Oil Works.....		..
Greenville, W. & W. H. Stead.....		..
Grenada, Grenada Oil Mill & Compress Co.....		..
Jackson, Pearl River Mills.....		..
Lexington, Lexington Oil Works.....		..
Meridian, Meridian Oil Mills & Man'g Co.....		100,000
Natchez, Adams Manufacturing Company.....		250,000
Natchez, Carpenter & Dicks.....		..
Port Gibson, Port Gibson Oil Works.....		22,000
Vicksburg, Refuge Oil Mill Co.....		125,000
Vicksburg, Warren Mills.....		100,000
West Point, West Point Oil Mills.....		75,000
Yazoo City, Yazoo Oil Works.....		50,000

NORTH CAROLINA.		
LOCATION.	NAME.	CAPITAL.
Charlotte, Oliver Oil Company.....		\$..
Elizabeth City, Elizabeth City Oil Co.....		..
Fayetteville, Fayetteville Cotton Seed Oil Mill.....		..
Goldboro, Goldboro Oil Company.....		25,000
Henderson, Henderson Oil Mills & Fertilizer Company.....		10,000
Newbern, A. R. Dennison.....		..
Raleigh, Raleigh Oil Mill & Fertilizer Co.....		100,000
Tarboro, Judge Howards.....		..
Washington, John Myer's Sons.....		..

SOUTH CAROLINA.		
LOCATION.	NAME.	CAPITAL.
Anderson, Anderson Oil and Fertilizer Co.....		\$50,000
Belton, Belton Oil Mill.....		..
Charleston, Charleston Oil Man'g Co.....		84,000
Chester, Catawba Oil & Fertilizer Co.....		35,000
Columbia, Oliver Oil Company.....		..
Columbia, Gibson & Co.....		..
Greenville, Greenville Cotton Seed Oil & Ice Company.....		35,700

TENNESSEE.		
LOCATION.	NAME.	CAPITAL.
Jackson, Jackson Oil Mills.....		\$100,000
Memphis, City Oil Works.....		60,000
Memphis, De Soto Oil Co.....		90,000
Memphis, Gayoso Oil Works.....		250,000
Memphis, Globe Oil & Fertilizing Co.....		65,000
Memphis, Hanauer Oil Company.....		200,000
Memphis, Hope Oil Works.....		..
Memphis, Memphis Oil Company.....		150,000
Memphis, Panola Oil & Fertilizer Co.....		100,000
Memphis, Planters' Oil Mill Co.....		96,000
Memphis, Valley Oil Mills.....		80,000
Memphis, American Cotton Oil Co.....		..
Memphis, Chickasaw Refining Co.....		130,500
Memphis, Star Oil Mill.....		50,000
Nashville, Dixie Oil Company.....		200,000
Nashville, Nashville Cotton Seed Oil Mills.....		60,000
Trenton, Trenton Cotton Seed Oil Mills.....		25,000

TEXAS.		
LOCATION.	NAME.	CAPITAL.
Austin, Central Oil Company.....		\$250,000
Belton, Belton Oil Company.....		60,000
Brenham, Ahrenbeck Oil Co.....		..
Brenham, Washington County Oil Co.....		8,000
Columbus, Colorado Oil Company.....		50,000
Coriscana, Texas Oil Company.....		..
Dallas, Howard Oil Company.....		400,000
Denison, Denison Cotton Company.....		..
Fort Worth, Fort Worth Oil Mill & Man'g Co.....		..

Galveston, Galveston Oil Co.....	300,000
Hempstead, Ahrenbeck Oil Co.....	300,000
Hempstead, Callahan Oil Works.....	..
Houston, Howard Oil Company.....	..
Jefferson, Phoenix Oil Works.....	100,000
La Grange, La Grange Oil Mill Co.....	..
Luling, Luling Manufacturing Co.....	100,000
McKinney, Collin County Oil Works.....	50,000
Navasota, H. Schumacher.....	..
Palestine, Howard Oil Company.....	..
Paris, Culbertson, Gaston & Co.....	..
Pittsburg, Camp County Oil Mill Co.....	30,000
San Antonio, Newman, Lange & Co.....	..
Schulenberg, Chr. Baumgarten.....	..
Sherman, Sherman Oil Works.....	..
Tyler, Tyler Cotton Seed Oil Co.....	40,000
Waco, Waco Oil Works.....	..
Wemier, Hillje & Brother.....	..

In sending out our letters of inquiry to these mills, we asked of each one the question: "Do you think there is danger of the cotton-seed oil mill business being overdone?"

This question was prompted by the knowledge that this—a comparatively new business—had increased very rapidly, more so in some sections than the supply of seed seemed to warrant, and that under the heavy production of oil there had been difficulty in finding consuming markets to take it, even at the reduced prices. The answers, some of which we give, were mainly to the effect that the mills had increased too rapidly, and that the business has been overdone. These statements, while undoubtedly having some foundation, must not be regarded as infallible. In certain sections, it is true, there is more crushing capacity than seed to crush, and expensive plants are forced to remain idle for a considerable time every year. Moreover, the price of the crude oil has largely declined during the last few years, and the margin of profits is not near so great as it once was. To some extent, however, this decline in price and the limited demand for the oil must be attributed to the general depression in trade, which has produced the same troubles in nearly all lines of manufactures. Iron makers have been claiming that there are too many furnaces and that the productive capacity of the country in iron is too great for its consumptive requirements. Cotton mill owners have loudly proclaimed that there are too many cotton mills, and so it is in other industries. It is, therefore, only natural that the cotton-seed oil mill owners should adopt the same cry. In this case, however, there is more in the claims of over-production in one way, at least, than in the others. The supply of ore from which to make the iron is unlimited, and the supply of cotton fully equal to the needs of the mills, but of cotton seed the supply is limited, and when that is exhausted the mill must remain idle.

To show the views of the mill owners, we give a number of the replies received in answer to our questions, omitting, however, the names of the writers.

A Texas company writes:

"Opposition by the city mills is preventing the building of more mills. Competition has made business unprofitable the past year or two. Should the war continue to be waged by the three or four syndicates, it is proposed to unite all others in opposition to said syndicates. Then we suppose there will be a 'Kilkenny cat fight.' Of this we are not advised, as we are not mad yet."

A North Carolina firm writes:

"There is but little profit in the cotton-seed oil mills at the present low price of oil. The cotton-seed meal stands high as a fertilizer, and there is a home demand for all the meal made in this section. The value put upon cotton seed as a fertilizer keeps the price above manufacturing at a profit. Farmers prefer to use all the seed they have and buy meal in addition, hence the supply of seed offering for sale is small. The profit must depend on the price of oil, as the meal as a fertilizer will not bear a much higher price, and the seed can not be bought at less. The average yield is from 33 to 35 gallons per ton; seed cost about \$10 per ton. Meal sells at about \$22 per ton, 2,000 pounds. Last season oil netted about 50 cents per gallon, barrels included. The expenses are very heavy in consequence of the wear on cloths, mats, &c. There are from 750 to 800 pounds meal from a ton of seed."

Of another North Carolina mill, that of Oliver Bros., of Charlotte, who have nearly

completed a new mill at Columbia, S. C., at a cost of about \$60,000, the Charlotte Observer says:

"Charlotte's cotton-seed oil mill is a money coining enterprise, as the Oliver Brothers well knew at the time they made their investment here. From the time cotton seed commenced coming in last fall until the supply was exhausted this summer, the mill never knew an idle hour except from 12 o'clock on Saturday night to 12.01 on Sunday night. To keep business moving at this remarkable rate, the Messrs. Oliver employed two sets of hands, one for day work and one for night work, and during the week the machinery was never stopped except for repairs. * * * The Messrs. Oliver are preparing for a heavy run of business the coming season, and expect to commence milling on September 25th. So successful has been their venture in Charlotte that they have extended their territory and have completed a large and splendid mill in Columbia, S. C., with a capacity three times that of the Charlotte establishment. The proprietors of these mills say that they design to turn out the coming season at their Columbia and Charlotte mills 20,000 barrels of oil. There has recently been a decline in the price of cotton-seed oil, but this fact has not discouraged the Oliver. Last season's oil held firm at 34 cents per gallon, but it is now down to 26 cents. This reduction is due partly to an increased production, but more directly to the decline in lard. 'You see,' explained Mr. Oliver to the reporter, 'the price of oil depends upon other things. Corn rules pork, pork rules lard, and lard rules cotton-seed oil.'

A South Carolina company writes:

"The business is already overdone, judging from lack of profits. Competition for seed is so great that the price of seed is too high relatively to the price of oil; besides many planters refuse to sell their seed or exchange for cotton-seed meal, preferring to use them in natural state for fertilizing and feeding."

The president of a large mill, who believes that there are too many mills making crude oil, but that there is room for more refineries, gives his views as follows:

"It is already largely overdone. There already is in operation machinery sufficient, if run on full time, to crush more than twice the seed crop annually marketed, or that can be marketed, at profitable prices to the mills. Our mill here is a fair example of many others. We have a crushing capacity of 15,000 tons of seed, and could, at a small expense for additional machinery, without increasing our buildings or our managerial and clerical expense, double this. Six years ago we crushed easily 13,000 tons of seed. Since this time this quantity has been gradually decreased until we are now crushing only about one-third of this amount and our mill lying idle, and a property investment representing an actual outlay of nearly \$100,000 is unproductive for two-thirds of the year. Since this mill was built, seven other mills have been built in the territory in which it originally secured its seed supply, and while that seed supply has not been increased 10 per cent. over the amount then secured, and no better prices, as compared with the prices of products are paid to the farmers, it is of course divided up among just that many more crushers, and the margin of profit in working it is of course decreased by the amount of the separate expenses of the several mills, some of which are actually run at a loss. * * * I should add that while I am confident that the manufacture of 'crude' oil is much overdone, I am equally positive that there are profitable openings for the establishment of more refineries, not small refineries, but large refineries with ample capital in the large trade centers, — Baltimore itself being the most favorable location I know of for one."

A Florida mill owner writes:

"I do not think the business is overdone in the long cotton seed, as that is the only seed we have in this section."

An Arkansas company owning a large mill, in answer to the question whether "there is any danger of the business being overdone," writes as follows:

"No; the acreage is increasing. New railroads are being built, opening up new sources of seed supply, sufficient in a few years to supply all mills now in operation."

This is directly contrary to what many of the cotton seed mill owners say. As already stated, the majority of them take the ground that there are too many mills, and in some sections this is doubtless true. One company now owning one mill, and having a large interest in several others, writes that:

"We do think there is already an over-production of oil."

Yet this company is now erecting still another large mill.

The manager of a mill located in North Carolina says:

"If a market can be found for the oil to net as much as 30 cents, the other products will, we think, be readily consumed to the extent of all the seed made, so as to make pressing pay with oil at 30 cents net."

From Georgia we also have a distinct declaration that the business is not overdone. In answer to our question a Georgia company says:

"No; cotton-seed oil is being put to new purposes every day, and the meal is becoming more in favor as a fertilizer."

The following replies will show what others think of the subject:

"Yes; too many mills and too little seed within practicable distance of transportation lines. Increase in production also exceeds increase in demand for products."

"Yes; cannot get seed. Our mill was built for double capacity, but we are unable to run full season 10 to 12 tons a day."

"Unless new uses creating more demand for cotton-seed oil, the business is already overdone, as there is now scarcely any margin for the manufacturer. Planters will use their seed for manure rather than take less than the now prevailing price of 12½ cents per bushel at their farms, so that the material to work on cannot be purchased for less than formerly, while the prices of its product have steadily declined for years, until they have reached the point where there is little for the manufacturer."

"Is already overdone. Mill don't run exceeding six months. Low price of oil shows consumption has not kept up with production. High-priced seed, low-priced oil makes it unprofitable. Very few mills can show profit in last three years. Errors usually made by writers on the subject are in giving prices of seed on plantation landings and prices of product at seaports, making no allowance for expense of transportation of seed to mills and of product to market, nor expense of selling, nor making allowance for packages, barrels, sacks for cake, loss of seed sacks, dishonesty or ignorance of planters using seed sacks for other purposes and sacking rotten seed, notes and all kinds of trash, and the heavy annual of repairs and expense while mill is not in operation, high insurance, &c., which, if taken in account, consumes margin. Our expense of getting product to market and selling same is \$4.50 per ton cake and 2½ cents per gallon oil. Deduct same from New Orleans quotations."

"Yes; on account of duty imposed by foreign countries."

"We think there is danger of the business being overdone. The supply of oil already exceeds the demand, and lower average prices prevail each season. Mills are being located so close together that an adequate seed supply cannot be had. The high price of seed and low price of oil even now requires the closest and most economical management to make a small profit on investments."

"We know it is already overdone in this section. One-half the mills now in operation in reach of us can crush all the available supply of seed by running only six months in the year. Another reason is the very low price of cotton-seed oil, which must result from over-production."

"We do, because the mills now in operation do not get a full supply of seed for a season's run, and the products are not now made at remunerative prices."

"Yes, sir; caused by too many mills going into the business, creating an over-production of oil; but, however, the demand may increase and hold prices up."

The secretary of a Tennessee mill makes a suggestion which deserves consideration. He writes:

"So many new mills have started, the supply is greater than the demand. The only remedy we know of is for the mills to make a better grade of oil, so that it will be generally used for culinary purposes."

There ought to be a big opening for cotton-seed oil for cooking purposes. Its superior excellence for that purpose has been fully demonstrated. Once adopted as a substitute for lard, there is no limit hardly to the demand that could be created for it. Before this is done, however, the oil must be of the very best quality, and even then it will be a slow work to overcome the natural prejudices against a new article of food. Outside of the possibility of any great demand for the oil for this purpose, there are new sources of demand constantly being discovered. On

this point a Texas company, after saying that there is no danger of the business being overdone, give as a reason for their belief that:

"The uses to which the oil is being placed are daily increasing and will create a demand for the same."

Upon this important subject—the possible uses and demand for cotton-seed oil—the Chicago Tribune says:

"There is a large market for cotton-seed oil in this city, and an establishment where the refining process is carried on. The oil is supplied to soap makers, lard refiners, bakers, confectioners, grocers, bottlers of olive oil, paint mixers, screw cutters, manufacturers of putty, butterine makers, etc., the material reaching the consumer through all these and other avenues of trade. Special efforts have recently been made to introduce it to the attention of bakers, and through the grocers and butchers to households for use in cooking. It is said to be preferred by those who use it because it is pure and wholesome article of food about which there is not and cannot be a shadow or taint of disease of any kind, while the hog and all other animals are liable to cholera, trichina and other diseases, for which reason their product carries with it the seeds of bodily ills to the human family through the medium of the kitchen. It is strange that the public should turn up its nose at the article which is pure and wholesome, while willingly buying and using it as an adulterant of lard, butterine and other articles used as food."

Bakers and others who use cotton-seed oil are as yet backward to acknowledge it, chiefly owing to the prejudice that exists in the public mind against its use, which, in turn, is due to a general knowledge of the fact that it is sometimes employed as an adulterant. But some of the most progressive bakers and merchants are growing more disposed to openly proclaim that they use the article and to give their reasons therefor. Of course, the principal reason is the fact that the oil is economical, which should, however, be a strong recommendation so long as it can be proved that the article is healthy. It is estimated that for bakers' use three pounds of the oil will do the work of four pounds of lard, while the cost at wholesale is at present a quarter of a cent per pound less for the former than for the latter."

In the manufacture of high grades of soap cotton-seed oil has no superior, and large soap makers use several thousand barrels of it annually. Lard refiners are also heavy buyers. Miners in the West use it almost to the exclusion of other kinds of oil for illuminating purposes, as it is non-explosive and gives a very good light. But its chief value will yet be found to lie in its great qualities as an article of human food, as it is a builder up and sustainer of bone and sinew. It promises to be a great aid to consumptives and other weak constitutions."

Cotton-seed oil contains no less than 95 per cent. of nutriment. This statement is found in a report recently made to Parliament by the purveyor of the English army in regard to the use of certain articles as food. He recommended cotton-seed oil as a heat producer and substitute for other fats, and largely as a substitute for meal. American cotton-seed oil has also played an important part in the rapid recuperation of France after her exhaustive war with Germany. The French are large raisers of cereals, and as they cost the consumer about four fifths as much as meat, the French people have eaten their cereals and sold their meat, using cotton-seed oil in the place of the latter, serving it up in combination with preparations from grain in the many palatable ways for which that people are noted. Spain, Portugal, Italy and other southern European countries are habitual consumers of cotton-seed oil, while Germany, England and Russia use large quantities, mostly as food. In the army of the last-named country it forms a part of the regular rations, and it has found its way even into Siberia, where the hunters carry it with them as a part of their regular supplies."

Notwithstanding the statements of many mill owners that the business is already overdone, there are quite a number of mills now under construction. Among them are the following:

W. D. Lathrop & Co., of Elizabeth City, N. C., are putting up a new and larger building and increasing their plant. They will have two Boomer & Boschert Presses, two heaters, &c., making their capacity 18 to 20 tons per day. The acreage of cotton has been largely increased since the establishment of this mill, and the outlook for business in that vicinity is very encouraging.

The Boomer & Boschert Press Co. are also putting a complete outfit of cotton-seed oil

machinery into the new mill of Judge Howards, Tarboro, N. C., with a capacity of 20 tons per day. The machinery consists of two Boomer & Boschert Presses, two heaters, one set crushing rolls, huller, &c., the entire outfit, including buildings, land, engine and shafting, costing about \$10,000.

At Columbia, S. C., a large mill is being built by the Oliver Oil Co., of Charlotte, N. C. This mill will have a capacity of 75 tons of seed a day. It is fitted with the very latest improvements in machinery.

The Mobile Oil Mill Co. are building a 50-ton mill at Mobile, Ala.

The Waynesboro Cotton Seed Oil & Fertilizer Co. are now erecting a 30-ton mill at Waynesboro, Ga.

Machinery has been ordered for a 7 ton mill at Athens, Ga.

A \$25,000 company has lately been incorporated to build a mill at Americus, Ga.

At Lexington, Ga., a mill is being put up.

The Columbus Oil Mill, Columbus, Ga., will double the capacity of their mill.

A large number of cotton-seed mills have within the last year or two added the manufacture of fertilizers to their oil business, and have either built separate factories or else enlarged their mills and put in special machinery adapted to the business. This has become quite an important feature of the trade.

In reviewing this industry the New Orleans Times-Democrat says:

"There have been but few new mills added to the list of last year, as capitalists and other investors have come to the conclusion that the bonanza time of the business has passed away, and it has taken its place alongside of other manufacturing enterprises that require good and economical management to make them pay a fair interest on the investment. Altogether, it can be said of the cotton-seed crushing business that it is in a healthy state."

Penetrating A Coal Region.

A contract recently made with Mr. Hervey, of Canada, by the Alabama Improvement Company, to build a railroad from the new town of Sheffield, on the Tennessee river, to Birmingham, Ala., assures the rapid development of one of the best coal and iron regions of the South. Work on this projected line was abandoned by the Alabama Improvement Company after building fifteen miles, more than a year ago, and all the hopes of Sheffield were clouded in uncertainty. From Sheffield, the northern terminus of the proposed Sheffield and Alabama Railroad, water transportation can be had to any part of the Mississippi valley at a cost lower than can be secured from Pittsburg. In addition to this, the Tennessee river rarely if ever becomes engorged with ice, and seldom becomes so low as to prevent transportation during all seasons of the year. From Sheffield to the coal regions is about thirty miles, but the best and thickest coal is reached at the distance of fifty miles. For seventy miles the road will pass over beds of workable coal, where its most economical development may be had. A distinguished gentleman who has been largely engaged in coal mining, after passing through this region declared that no other coal field in America could compare with this in the quantity and quality of the coal and the cheapness with which it may be mined. Seams four, five and six feet in thickness are not uncommon, and it is the opinion of those who have given the greatest amount of study and investigation to this coal field that there are four or five workable seams placed in superposition along the line of this projected road.—Nashville American.

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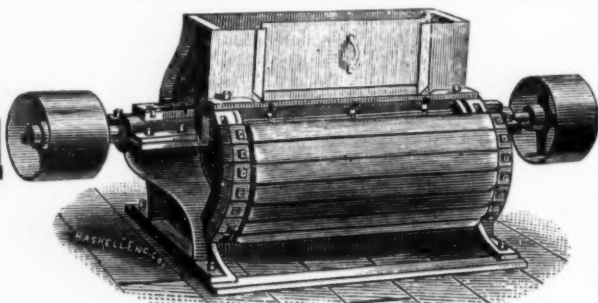
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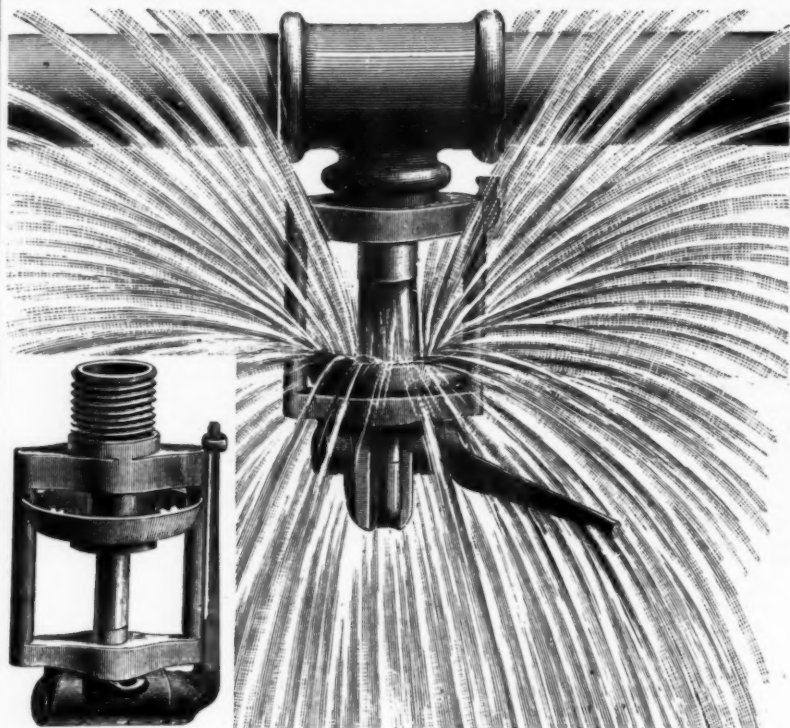
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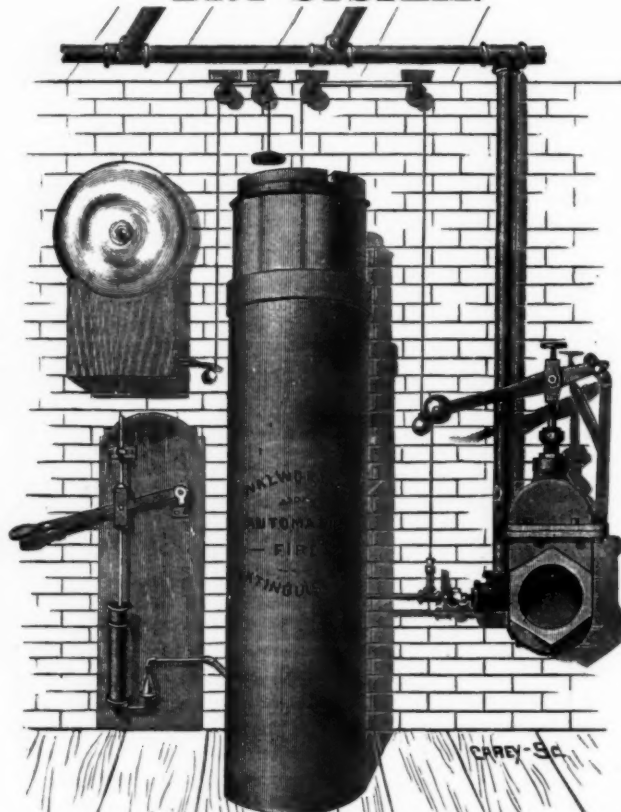
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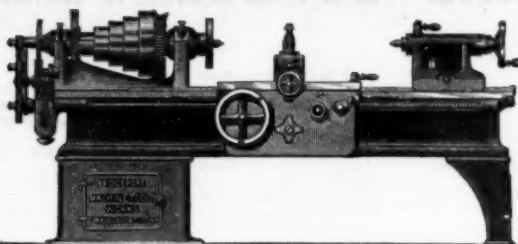
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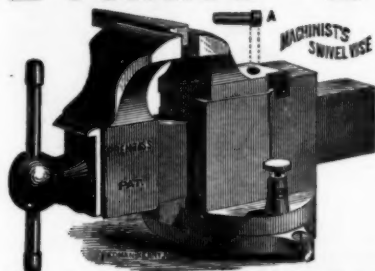
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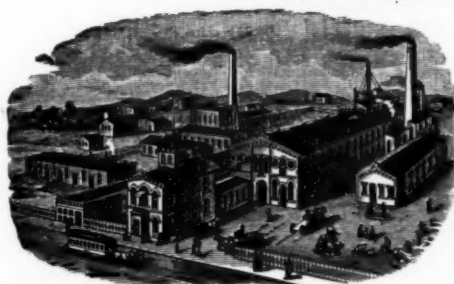
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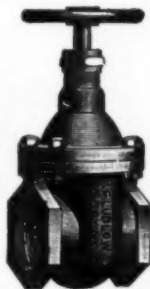
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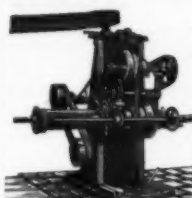
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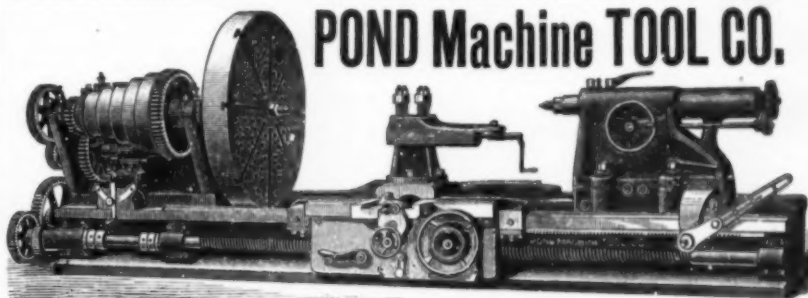
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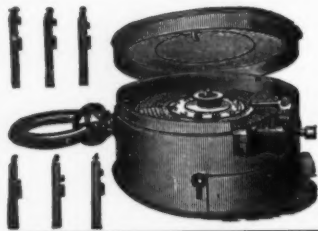
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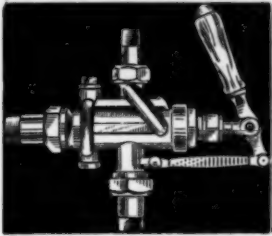
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PARTNER WANTED with \$5,000 to start a stove factory by parties representing over \$20,000 in real estate and having ample experience. A large profit can be made. Will guarantee the investment and 8% per annum. Address Enterprise, Lock Box 27, Warrenton, Va.

WANTED.—A position in a sash and blind factory as foreman or master-workman; 12 years' experience; well up in all kinds of wood-working; can give best recommendations. W. T. L., care **MANUFACTURERS' RECORD**.

TO SOAP MANUFACTURERS.—The location of a soap manufactory is desired in a live and growing Southern city of 10,000 inhabitants, situated at the junction of two trunk lines of railroad, in the best section of the South, entirely free from malaria or epidemics. To a thoroughly practical man competent to manage the business and able to furnish half the capital required for a respectable establishment, inducements will be offered. Address Oil Mill, care **MANUFACTURERS' RECORD**, Baltimore, Md.

WANTED.—A party with \$3,000 to \$5,000 capital and a knowledge of manufacturing agricultural implements; business already established; one of the best locations; a good chance for a safe and profitable investment; the machines are covered by five patents, and well tested by 3 years actual use, and an increasing demand. Investigation solicited. For particulars, address A. C. Hendricks, Shenandoah Junction, W. Va.

SITUATION WANTED.—A young man having some education and experience in mechanical engineering, desires location South. Resigned position North to recover health impaired by severe Northern winters. Prefers subordinate position, as assistant to foreman or superintendent, with prospect of advancing. Address Engineer, care **MANUFACTURERS' RECORD**.

WANTED by a machinist with an established business, a partner with \$3,000 to \$5,000 capital, to start a machine shop and to handle machinery. One of the best locations in the United States. Ample business already promised; room for almost unlimited development. Location, a vigorous and progressive Southern town; perfectly healthful. Investigations solicited. Address Machinist, care **MANUFACTURERS' RECORD**.

WANTED.—A situation as superintendent or foreman in a hub, spoke or axle handle factory. Have had 12 years experience. Good references. P. O. Box 213, Columbus, Miss.

FOR SALE.—A very fine water power and an iron bloomery; convenient to W. & A. R. R., 45 miles north of Atlanta, Ga. Also have on hand 12,000 bushels of charcoal; all necessary machinery for making wrought scrap, pig iron and ore blooms; machinery all in running order; never failing water power; good healthy mountainous country; very best freestone water; fine mill site. Will sell all very cheap for cash. Address W. W. Wheeler, Stegall's Station, Ga.

WANTED.—By a young man, a position as superintendent of a cotton-seed oil mill. Will take a mill that is leaving 15 per cent. of oil in the cake, and guarantee to reduce it to 8 or 10 per cent. Address "C," care "New South," Columbus, Miss.

WANTED.—By a young man—double-entry bookkeeper, good and rapid penman—a situation where bookkeeping, writing or mathematics are involved; good credentials. Will give careful and undivided attention to business. Address A, care **MANUFACTURERS' RECORD**.

SPLENDID LOCATIONS for saw mills upon the white oak and yellow poplar timber lands on and near the line of the C. & O. R. R., in Carter county, Ky., offered for sale by K. B. Grahn, of Olivehill, Ky. Correspondence solicited. Low rates.

A NEW manufacturing enterprise in the South wants more capital to provide facilities to meet increasing business. Splendid field; location all that could be desired; a fine opportunity for investment. Address D. S., care **MANUFACTURERS' RECORD**.

HAVING the requisite practical and some business experience, and an acquaintance that would be useful, I would like to engage with some cotton mill to take charge. Address A. E., care of **MANUFACTURERS' RECORD**.

AN ENGINEER and draughtsman wants position where his experience in managing men, designing and constructing machinery of various kinds can be given a trial, in a machine shop, mill or gas works. Address Engineer, 147 Lafayette avenue, Brooklyn, N. Y.

A SCOTCHMAN of 20 years experience in the cotton and woollen manufacturing trade, is open for engagement as manager, or in any capacity where his experience and practical knowledge would be required. Is thoroughly posted in all details. Address W. M., care **MANUFACTURERS' RECORD**.

WANTED.—A practical bucket maker. To the tight sort of a man who has had experience in working cedar and white pine, and can run a shop successfully, a good inducement will be offered. Barker Manufacturing Company, Knoxville, Tenn.

INVENTIONS.—Peach and apple pater combined—simple; tricycle; steamboat propeller; snow scraper; ellipsograph; roofing seamer, &c. Will sell any or all, or place out on royalty. Box 99, Perry, Ga.

WANTED.—By an energetic, live young man a partner with \$10,000 to \$20,000, to engage in the tobacco business in Piedmont, North Carolina. Best of reference given, showing him qualified to handle business. Address Tobacco, care **MANUFACTURERS' RECORD**.

WANTED by a qualified mining engineer a position as superintendent or manager of a mine in the South. Accurate mine surveys made and ventilation attended to. Address Geo. D. Stonestreet, Mining Engineer, Box 397, Birmingham, Ala.

A FIRST-CLASS MOULDER with moderate capital, also a pattern-maker, can secure an interest in a paying business in the South. Business now in fine condition, but without sufficient facilities to do all the work that can be secured. Additional capital needed. Address H. & Co., care **MANUFACTURERS' RECORD**.

FOR SALE.—1 offer for sale a half interest in pressed brick works making 1,000,000 pressed brick a month, and the management of the works to the buyer. The best paying property in North Texas. Demand for the brick unlimited. Address J. B., care **MANUFACTURERS' RECORD**.

THE CITIZENS OF ROANOKE, VA.

offer to subscribe one-half of the capital stock necessary for the erection and operation of a rolling mill, for the manufacture of merchant iron and steel. The other half to be subscribed by parties competent to manage and operate the same. Roanoke is an unusually desirable place for the location of such a plant, and the city offers special inducements to any manufacturing company that will locate within its limits. For particulars, address **E. H. STEWART, Chamber of Commerce.**

THE SUFFOLK COTTON MILLS FOR SALE.

I shall offer for sale at public auction, on the premises, on

Wednesday, September 30, 1885,

all that valuable property known as "THE SUFFOLK COTTON MILLS," consisting of real estate in Suffolk, with the necessary buildings and machinery, representing an investment of more than \$40,000.

The machinery is in good order and adapted to the manufacture of cotton yarns and wrapping twine, for which there is a ready sale. Purchasers are invited to examine the property, which can be bought at a sacrifice.

TERMS CASH.

For further particulars address
SYDNEY T. ELLIS, Trustee,
Suffolk, Va.

FOR SALE.

A Portable 20 Horse-Power Engine and Saw Mill, with large lot of timber, if desired, within 6 miles of Farmville, and 3 from railroad. Also one 8 Horse-Power Portable Engine, on skids, Horizontal Boiler, Talbot's make. It is now mounted on truck and used for threshing wheat. Address

FARMVILLE MANUFACTURING CO.,
Farmville, Virginia.

FOR SALE.

A Cotton Seed Oil Mill situated in the heart of the cotton region of Texas. The machinery is comparatively new and is in first-class condition. Railroad side track runs to the doors. Any one desiring to invest in this class of property should address—

Jas. H. Simpson Bank, Columbus, Texas.



Trade: Send for cuts: Gratis.
Send for circulars: Gratis.
Send 10 cents for Book of Rules.

THE LIGOWSKY
Clay Pigeon Co.
Box 1,292,
Cincinnati, Ohio.

Established 1867.
E. Harrington, Son & Co.
MANUFACTURERS OF
PATENT EXTENSION and SCREW-CUTTING LATHES,
Iron Planers,
Radial, Upright, Suspension,
Multiple and Lever
DRILLS,
and a variety of other
MACHINISTS' TOOLS
Patent
Double Chain Screw Pulley Blocks.
Unrivalled for Durability,
Safety and Power.
Patent Double Screw Quick-Lift Hoists,
with brake for quick and easy lowering.
Circulars furnished.
Works and Office, Cor.
N. 15th and Penna. Ave.,
Philadelphia, Pa.
Represented by J. Q. MAY-
NARD, 12 Cordant St., N. Y.;
C. E. KIMBALL, 93 Oliver
St., Boston; W. H. RICKEY,
116 Main St., Cincinnati.



Adapted for Warehouses, Stores, Factories, Hotels, Public Institutions, and every place where merchandise, &c., is transferred from one story to another.

JAMES BATES, Patentee,
Nos. 1 3 & 5 President Street. BALTIMORE.

THE BRADSTREET Mercantile Agency

HAS NOW BEEN
Under its present successful management for the past seven years.

And during that time its business has more than trebled, while its facilities have proportionately increased.

No expense is considered too great in obtaining and applying to the conduct of the business all possible improvements. With its present system for obtaining and promulgating information, this Agency is justly regarded by its patrons as authority on all matters affecting commercial credit. Its ramifications are greater and its business larger than any similar organization in the world conducted in one interest and under one management.

You are respectfully invited to investigate, and if in need of an Agency, to test its ability to serve you.

CHAS. F. CLARK, President.
Baltimore Office, American Building,
H. KERSHAW, Supt.



TOOLS for Machinists, Amateurs, Jewellers, Model Makers, Blacksmiths, Carpenters, Coachmakers, etc.
Send 25 cts. for new Metal Worker's Catalogue, 300 Pages.
Wood Worker's Catalogue free.
FALLMAN & McFADDEN, Philadelphia, Pa.

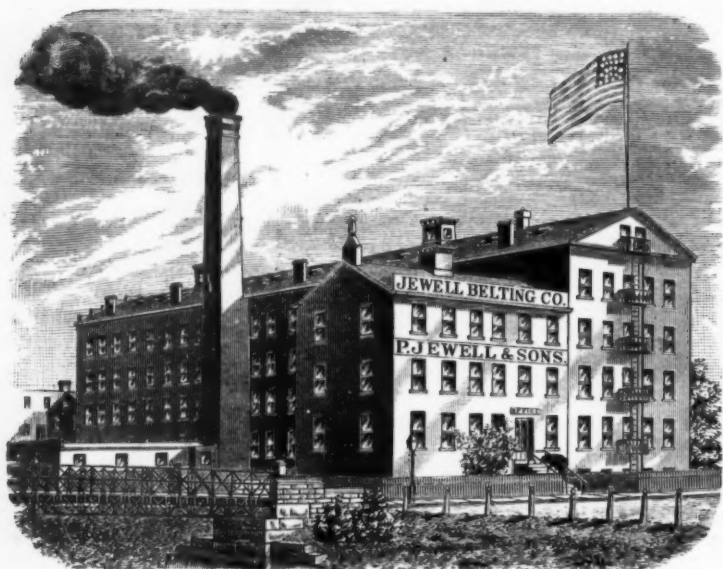


Architectural Iron Works.
J. P. WALTON & CO.
CINCINNATI, OHIO.

Manufacturers of all kinds of IRON WORK for building purposes.—Store Fronts, Columns, Lintels, Joists, Stairs, Railing, Roof-Trusses, Doors, Shutters, etc. Jail work a specialty. Write us for catalogue.

JEWELL BELTING CO.

SUCCESSORS TO
P. JEWELL & SONS,



— MANUFACTURERS OF —

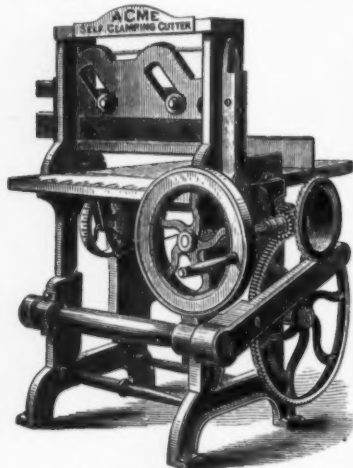
LEATHER * BELTING — AND — LACE LEATHER, HARTFORD, CONN.

THE ACME SELF-CLAMPING PAPER CUTTERS,

Accurate, Durable and Strong, Saves Time, Very Rapid, Superior in every point of Excellence.

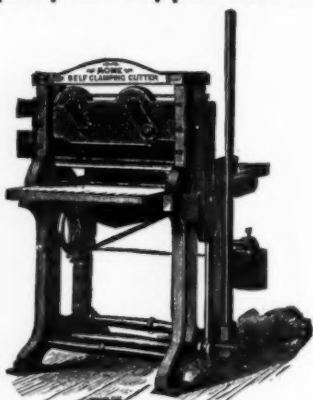
This line of cutters now enjoys the highest reputation for strength, power, durability, accuracy, simplicity, convenience and a superior principle of operation, and they are used by the leading printers, book binders, paper dealers, lithographers and paper manufacturers of the country. The essential features are

1. It is a perfect self-clamping cutter, clamping the paper and cutting at one operation, giving double the speed and saving one-half the work of cutting.
2. The clamp is made in two parts, the regular width being two and a half inches. Half of it may be taken off, allowing the back gage to come within one and one quarter inches of the knife, an invaluable feature for narrow work.
3. The back gage is moved by a metallic band (passing over a wheel) on which is also an indicator giving the exact distance from the edge of knife to back gage. The gage is moved very fast, with ease, and the indicator renders the operation of gaging absolutely certain.
4. A perfect system of side squares.
5. Economical and convenient round cutting sticks. Giving 56 cutting surfaces where there is only 8 on other makes.
6. A great number of little conveniences found in no other cutter. With every facility for taking up wear and adjusting correctly.
7. Thorough construction. Steel shafts are used on all, and cut gears in the larger machines, and everything of the best. Having the best machines in the world, the manufacturer will not cheapen the machine, and will guarantee them satisfactory, or they can be returned at his expense.



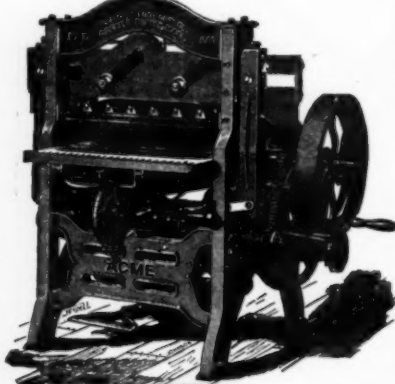
HAND WHEEL ACME.

Specially designed for those who require the heaviest work done, but have no steam power. It will cut any amount of paper that can be put under the clamp with the greatest ease, but is slower than the lever-cutter. The balance wheel is in front, at the operator's right hand, and may be operated without change of position.



THE LEVER ACME.

Strongly made, gaged with an indicator, has side squares, and is warranted accurate. The lever is very long, giving the greatest power, and is made of wrought iron.



REGULAR ACME.

DOUBLE GEAR.

This machine is made very strong and heavy. Power is applied at both ends of the knife bar. Designed for the heaviest class of work. Unsurpassed by any first-class cutter made. Can be operated by hand with ease. This cut shows the new Treadle Clamp recently applied to the Acme Cutters, by which the operator has the use of both hands while clamping the paper. A regular hand clamp may also be applied to any of these cutters if desired. Price of either style is \$75 extra. Circulars giving full details and accurate engravings of the Acme Cutters will be sent on application.

Prices, \$200. to \$1,600

C. C. CHILD, 64 FEDERAL STREET, BOSTON, MASS., U. S. A.
Manufacturer of 40 sizes and styles of Acme Cutters, and 15 sizes and styles of Two-Revolution Cylinder Presses.

New Enterprises in a Virginia Town.

BLACKS AND WHITES, Sept. 11, 1885.
Editor Manufacturers' Record:

The boiler to my portable saw mill exploded on the 17th of August, near Wellville, Va., on the Norfolk & Western R. R., and was a total loss; shall replace it in a few weeks. In my foundry, which is located here, I manufacture plows, castings, wagons, buggies and all kinds of farming implements; have in addition to this a steam saw mill for the purpose of cutting all styles of lumber, such as boards, shingles, lathes and tobacco box material. Our village is quite a thrifty little place of 1,000 inhabitants. Together with other enterprises there is considerable attention paid to the manufacturing interests.

E. C. McCulloch, manufacturer of sumac and bark, is running full time and has foreign orders for all he can make. The Virginia Tobacco Works, manufacturers of all grades of plug and twist tobacco, report a satisfactory business. Epes, Tuggle & Co., manufacturers of fertilizers, report business as well as could be expected. These three enterprises have recently started up here. Messrs. J. A. Smith & Co. are erecting a commodious warehouse for the sale of leaf tobacco, and anticipate doing a large business.

J. C. HUDDER.

Planing Mill.

POULAN, GA., Sept. 12, 1885.

Editor Manufacturers' Record:

Geo. F. Montgomery, of Vincennes, Ind., is putting up planing mill with capacity of 60 M feet per day.

J. Y. McPHOUL.

KNOXVILLE, TENN., Sept. 14, 1885.

Editor Manufacturers' Record:

Col. Sam. McKinney, of this place, contemplates constructing a railroad to his marble quarry about two miles distant.

H. N. SAXTON, Jr.

GREENVILLE, ALA., Sept. 14, 1885.

Editor Manufacturers' Record:

It is not reduced to a certainty that we will build a cotton-seed oil mill,—for we are investigating the matter with a view to that purpose. We think we will build, and will determine in a few days.

W. H. & J. D. FLOWERS.

THE Curtis Regulator Co., of Boston, have recently supplied the Water Works Co., of Helena, Montana, with 9 pressure regulators for their street mains. The office of these regulators is to reduce the water pressure from 160 to 80 pounds in the mains, thereby taking off the excessive pressure from the service pipes, which are so injurious to fixtures, hose, etc.

THE American House, Boston, is one of the favorite hotels of that city. It has a large patronage of the best class of guests, and visitors will there find a hotel under the most perfect management.

Important.

Passengers arriving in the city of New York via Grand Central Depot, save \$3 carriage hire and transfer of baggage, by stopping at the Grand Union Hotel, opposite said depot. Passengers arriving by West Shore Rail Road, via Weehawken Ferry, by taking the 42d street horse cars at Ferry entrance, reach Grand Union Hotel in ten minutes for 5 cents, and save \$3 carriage hire. Passengers arriving at Pennsylvania Depot, on reaching New York side, can take 6th Avenue Elevated Railroad at Cortlandt Street Station, and reach 42d Street Station, two blocks from Grand Union Hotel, in 20 minutes, for 10 cents, thus saving \$3 carriage hire. 600 elegant rooms, \$1 and upwards per day. European plan. Elevators, restaurant, cafe, lunch and wine rooms supplied with the best. Prices moderate. Families can live better for less money at the Grand Union than at any other strictly first-class hotel in the city. Guests' baggage delivered to and from Grand Central Depot, free.

TRADE NOTES.

Western Forge and Tool Works, St. Louis.

Attention is called to the advertisement in this issue of this company, at No. 1220 and 1222 Collins street, St. Louis, Mo., who are perfecting arrangements to manufacture on an extensive scale bridge and roofing iron work of any description, and who solicit correspondence with a view to making contracts for work of this character. They also manufacture railroad track tools and tools for digging artesian wells, and working rock quarries, and make a specialty of heavy forgings for engines and machinery.

The company will have an elaborate display at the St. Louis Exposition which will be of a character to especially interest Southern railroad men, miners and manufacturers.

Cotton Seed Huller.

Attention is called to the advertisement of George J. Fritz, Nos. 2022 to 2028 South Third Street, St. Louis, which is of special interest to the cotton growers of the South. The huller manufactured by this house is too well known to require more than a brief reference to its peculiar points of superiority. It is claimed that it takes less power to run than any other similar machine. The knives in the cylinder have four cutting edges, and it is only necessary to change them once by reversing the knives. It can be set and adjusted in from one to one and a half hours. The huller has a steel shaft; the cylinder has fourteen steel knives; each huller has seven stave knives. The hullers are made in two sizes—No. 1, having a capacity of 50 tons per day of 24 hours, and No. 2, a capacity of 25 tons. Mr. Fritz also manufactures a seed meal cake former, for use in oil mills, to form into cakes the meal of linseed, cotton seed, castor bean seed, etc., prior to putting it into the hydraulic press to remove the oil therefrom.

Correspondence is solicited in regard to furnishing mills complete. Send for descriptive price-lists.

ARMSTRONG BROS., of Springfield, Ohio, have just closed with the Springfield Engine & Thresher Co. for their season's supply of boilers, 350 in number. They are running a full force of men 18 hours a day. Among some of their recent shipments are two steel tubular boilers for the Columbus Asylum for the insane, 65 feet diameter, 18 feet long; three steel tubular boilers, 54 feet diameter, 16 feet long, for the Orphan's House at Xenia, Ohio; one steel tubular boiler 66 feet 16 inches long, for the Northern School building, this city; one 50 horse-power steel boiler for Bretney's tannery, this city; three 20 horse-power and one 15 horse-power boilers, for St. Louis; two 50 horse-power boilers for the Art Museum, Cincinnati; and one 40 horse-power boiler for the Music Verein, Cincinnati. The contract for the four large boilers for the Cincinnati court-house was awarded them last week.

CORRESPONDENCE relating to the manufacturing, mining, lumbering and all other material interests of the Southern States is solicited. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested. We will take great pleasure at all times in telling what has already been accomplished in the South, and showing up the opportunities of doing still more.



E. W. BLISS,

—MANUFACTURER OF—
Cutting, Drawing, Stamping, Embossing, Reducing & Punching

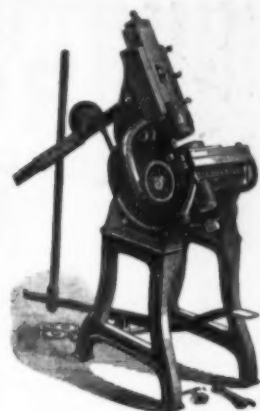
Presses and Dies

FOR WORKING ALL SHAPES AND CLASSES OF SHEET METAL.
Double Seaming Machines for Round, Square and Oval Cans. Hand and Power Circular Shears, Foot and Power Squaring Shears.

CANNING MACHINERY,

Steam Chests, Can Fillers, Soldering Machines, Engine Lathes, Shapers and Milling Machines. Special Machinery of Every Description for Manufacturing Sheet-Metal Goods.

143 Plymouth Street, BROOKLYN, N. Y.



THE VENDOME.

The Greatest Triumph in
Hotel Enterprises.

*Its Elegance, Spacious-
ness, Sanitary Excellences,
Unequalled Location, Fine
Surroundings and Views,
make it*

The Most Desirable Hotel
in the Country.

ESPECIALLY FOR

The Summer Traveller.



COMMONWEALTH AVENUE, Showing the Brattle-square Church and the Vendome.

BOSTON'S New Palatial Hotel W. TRACY EUSTIS, Manager.

The VENDOME is at the corner of
Commonwealth Avenue and Dart-
mouth Street, extending 240 feet on
the former and 125 feet on the latter.

Commonwealth Avenue, on which
the Vendome has its main front, is
perhaps the finest boulevard in
America. It is 210 feet wide; through
its centre is a strip of improved park
land 100 feet wide; and along its
sides are hundreds of well-constructed
and architecturally beautiful resi-
dences. Look up or down Common-
wealth Avenue by day, when the
stately lines of buildings and the
several rows of trees can be seen for
a distance of a mile or more, or by
night, when the avenue is lighted by
four continuous rows of gas lamps
throughout its length, and you will
see one of the most attractive thorough-
fares either in this country or in
Europe.



Established 1868.

Incorporated 1879.

Perforated METALS

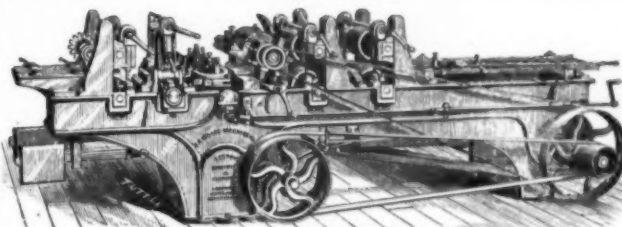
—FOR—

COTTON GINS,
Cotton Seed Oil Mills,
RICE MILLS,
And all other Purposes.

For catalogues, prices, &c., address

The Robert Aitchison
Perforated Metal Co.,
76 E. VAN BUREN ST., CHICAGO, ILL.

Wood-Working Machinery



FOR
Railroad Shops,
Planing Mills,
Car Builders,
Cabinet, Carriage,
Sash, Door
Blind Makers.

We received eight First-Class GOLD MEDALS at the World's Exposition, at
New Orleans, La., on our Machinery, awarded by an Experienced
and Practical Committee.

GOLD MEDAL for best Fast-Feed Flooring Machine.

GOLD MEDAL for best Molding Machine.

GOLD MEDAL for best Endless Bed Double Surfacers.

GOLD MEDAL for best Jointing Machine.

GOLD MEDAL for best Circular Saw Machine.

GOLD MEDAL for best Planing Machine for Matching two Boards at a Time.

GOLD MEDAL for best Panel Planer.

GOLD MEDAL for best Shop Surfacers. Illustrated Catalogues on Application.

S. A. WOODS MACHINE CO.

WAREHOUSES:

91 LIBERTY STREET, 172 HIGH STREET, 61 S. CANAL STREET,
New York. Boston. Chicago.

THE ATLANTA WIND ENGINE COMPANY,

235 Marietta St., ATLANTA, GA.

ECLIPSE WIND MILLS AND PUMPS.

MANUFACTURERS OF

Cypress & Yellow Pine Tanks,

Geared Mills, Grinders, etc.

Suburban Water Works, and for

Stock Farms, Irrigation, Etc.

Water Works for Towns and Cities.

STEAM PUMPS FOR ALL PURPOSES. WRITE FOR CATALOGUE.



ATLANTA RUBBER COMPANY,

ATLANTA, GA.

RUBBER BELTING,

PACKING, HOSE, &c.

PURE OAK LEATHER BELTING,

MILL SUPPLIES AND

ALL KINDS OF RUBBER GOODS.

AGENTS:

NEW YORK RUBBER CO'S BELTING, &c.

HOYT'S LEATHER BELTING.

NEW JERSEY RUBBER SHOE CO.



STEAM

PUMPS

SEND FOR PRICES. VALLEY MACHINE CO. EASTHAMPTON, MASS.

IRON ROOFING
SIDING, CEILING,
ARCHES AND LATH.
CINCINNATI
CORRUGATING CO.
CINCINNATI, O.
SEND FOR ILLUSTRATED CATALOGUE.

CORRUGATED

CRIMPED

Keep Your Steam Boilers Clean!

"An Ounce of Prevention Worth a Pound of Cure."

SAVE YOUR FUEL!

Warner's Purifier and Heater

[PATENTED JULY 21, 1885.]

The best way to cure your steam boilers of incrustation and sedimentary deposit is to keep out of the boiler that which causes incrustation and sediment.

The chief ingredients causing sedimentary deposits and incrustation are organic matter, carbonate of lime, sulphate of lime, carbonate of magnesia, sulphate or sulphuret of iron, and in salt water common salt. The WARNER PURIFIER AND HEATER is the only machine which precipitates all impurities held in suspension, heats the water to the boiling point under full boiler pressure, separates and precipitates the mineral salts held in solution before the water reaches the boiler, and then injects the water thus purified into the boiler boiling hot. It is an automatic machine, entirely outside of the boiler, requiring absolutely no attention from the engineer except to blow off the accumulation of deposit from the bottom of the machine which acts as a mud-drum. All this is accomplished without the use of chemicals, by a purely mechanical process, regulated by the principles of natural philosophy.

No more "shutting down" of work to clean boilers—the machine does it all every day without interfering with the work, and by removing scale and preventing its formation, and heating the water to the boiling point saves a large percentage of fuel.

The WARNER HEATER AND PURIFIER COMPANY is now ready to furnish these machines on demand at very reasonable figures.

WASHINGTON, D. C., May 23, 1885.

This is to certify that I have made a careful examination of "Warner's Combined Purifier and Heater of Feed Water" in practical operation at the "Harris House" and "Post Building," in this city, and do not hesitate to pronounce it the best machine for the purpose ever invented. By its use the water goes into the boiler free from all impurities and heated to the boiling point under full boiler pressure, and as the result of the injection of pure water, the boiler is freed from scale and kept clean, while a large saving is made in fuel by the removal of the scale and heating the water to the boiling point before it enters the boiler. By the use of this machine the necessity of "shutting down" in order to blow out and clean the boiler is wholly obviated, as the impurities are all collected in the bottom of the machine, which can be blown out as many times a day as the engineer thinks proper without interfering with the workings of the boiler. I confidently commend this machine to all persons who own or use steam boilers, and am satisfied that its use will prolong the life of the boiler and make a handsome saving in the use of fuel.

(Signed) JOHN H. WILKERSON,

Inspector of Steam Boilers for District of Columbia, 220 7th Street, S. E.

"HARRIS HOUSE," COR. PENNSYLVANIA AVENUE AND E STREET, N. W.

WASHINGTON, D. C., June 23, 1885.

This is to certify that one of "Warner's Purifiers and Heaters of Feed Water" has been in use on one of the boilers of the Harris House, in this city, for three months, and has proved a perfect success. The boiler upon which the machine was placed was at the time covered with a heavy scale composed of animal and vegetable matter, lime, &c., which, by the use of this machine, has been entirely removed, the boiler being now as clean as when it came from the boiler-maker. This has been entirely accomplished, without the use of chemicals, by the injection of pure water, through the "Purifier and Heater." This machine injects the water into the boiler heated to the boiling point under full boiler pressure, and by this means, together with the removal of the scale, results in a large saving of fuel. It is also invaluable in the purification of the water for laundry purposes. The machine is self-acting, and prevents the necessity of "shutting down" in order to blow out the boiler, as the impurities are all concentrated in the bottom of the machine, and can be blown out through the machine as often during the day as the engineer may deem advisable without interfering with the working of the boiler. I am convinced that its use will prolong the life of all boilers upon which it may be placed, save a large percentage of fuel, decrease the danger of explosion, purify the water for all purposes, and give general satisfaction. I confidently commend it to all hotels using steam and to owners of steam boilers generally as a much needed improvement that will do the work claimed for it thoroughly.

(Signed) JOHN H. HARRIS, Proprietor of Harris House, Washington, D. C.

WASHINGTON "POST" BUILDING, WASHINGTON, D. C., June 23, 1885.

This is to certify that one of "Warner's Purifiers and Heaters of Feed Water" was placed upon the boiler of the Post Building about 60 days ago as a test. At that time the boiler was covered with a heavy scale of animal and vegetable matter, lime, &c., which it was impossible to prevent. By the use of this Purifier and Heater, which injects the water into the boiler free from all impurities and heated to the boiling point, the scale has been removed and the consumption of coal reduced. The machine works itself and is invaluable as a purifier of water to all branches of business requiring pure water, such as hotels, laundries, &c., and a much needed adjunct to all steam boilers, prolonging their life, decreasing the danger of explosion and effecting a large reduction in the consumption of fuel. I confidently commend Warner's Purifier and Heater to all owners of steam boilers, being confident that their interests will be subserved by its use.

(Signed) J. FRANK MCGUIRE, Superintendent and Engineer Post Building.

ADDRESS,

Hon. JOHN F. DEZENDORF,

Room No. 35 Corcoran Building,

—WASHINGTON, D. C.—

FRED. J. MEYERS MFG. CO.
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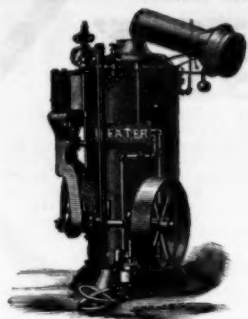
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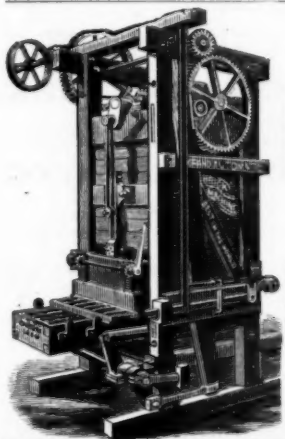


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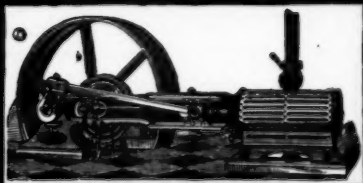
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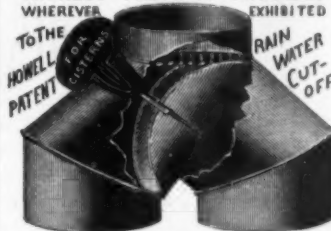
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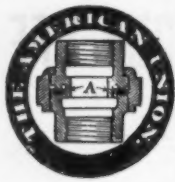
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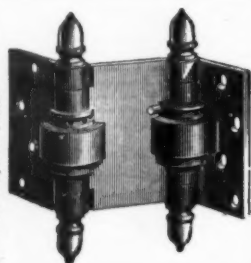
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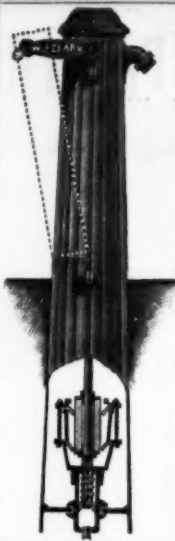
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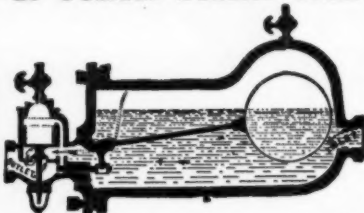
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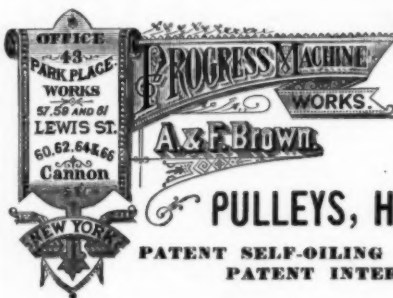
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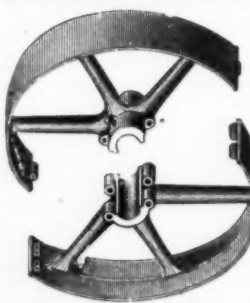
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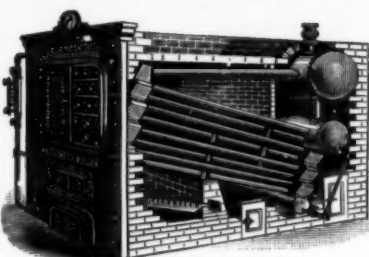
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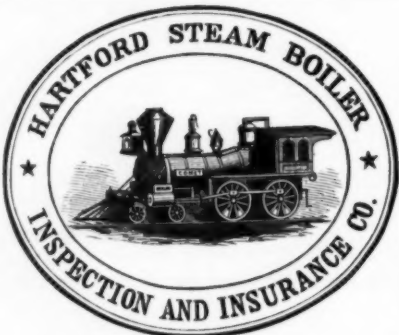
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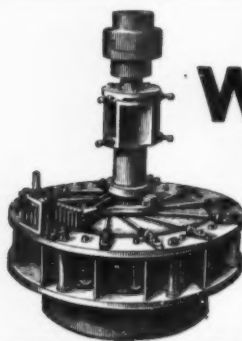
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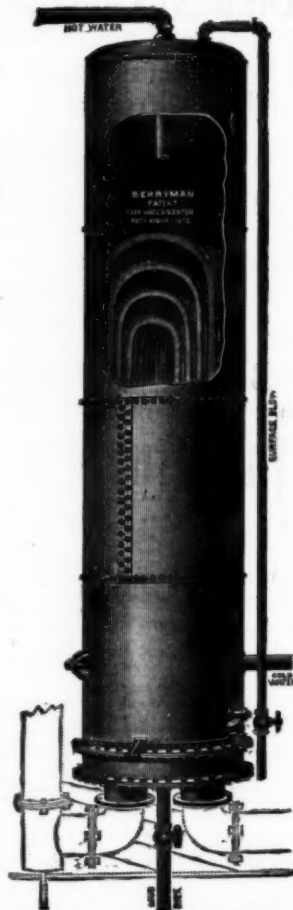
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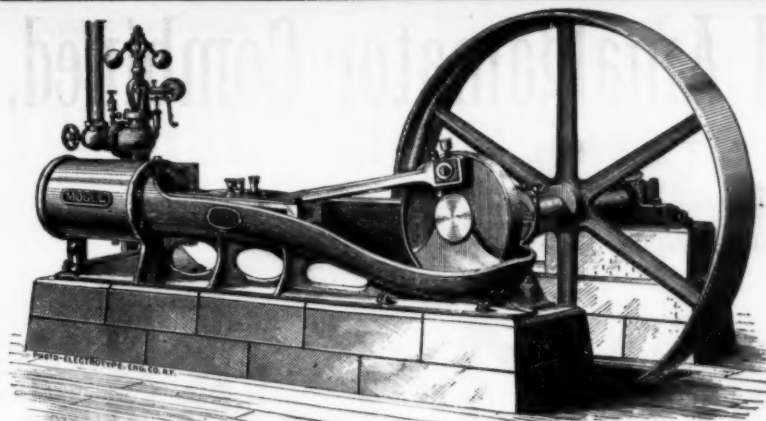
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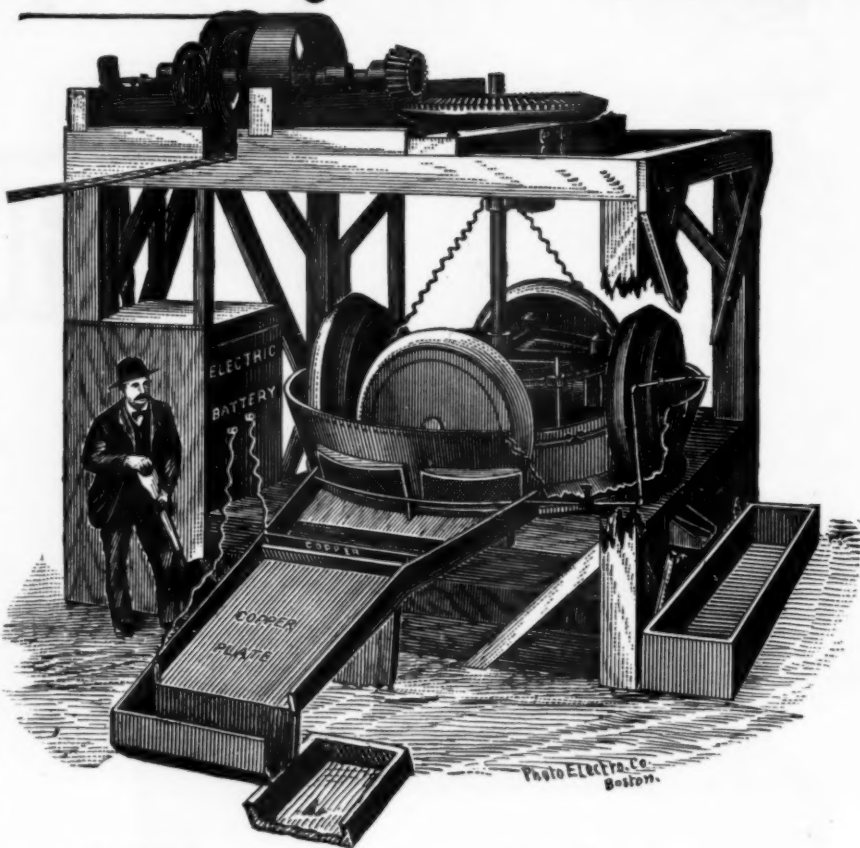
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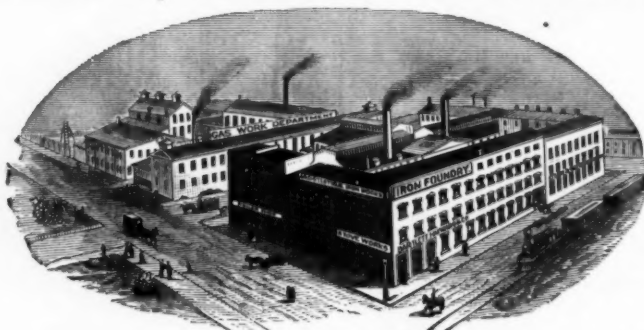
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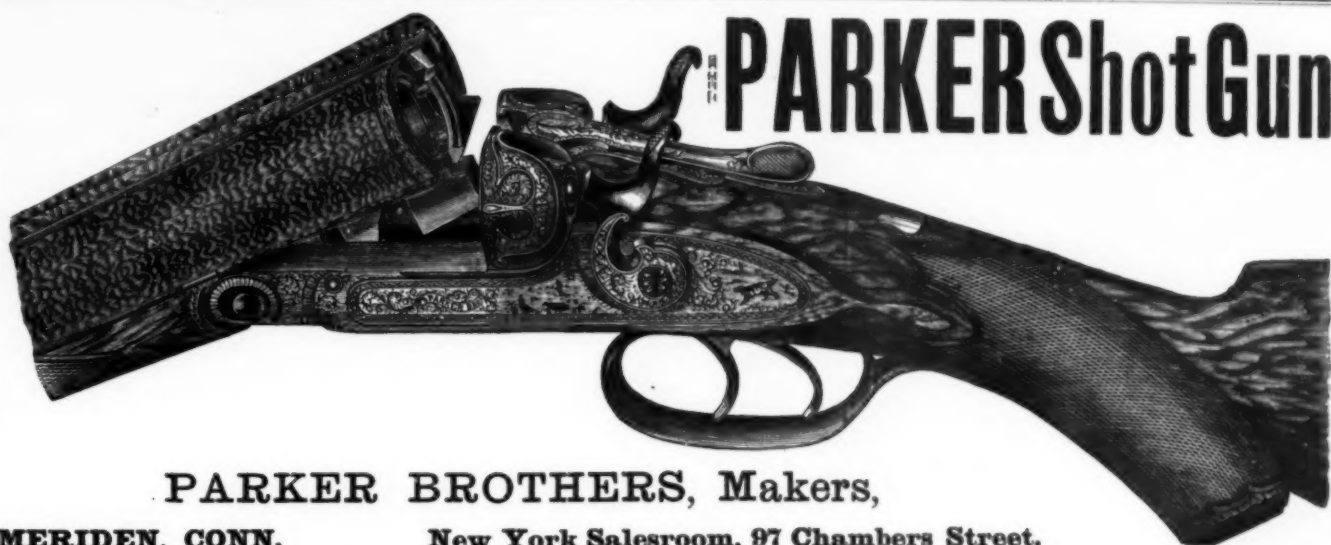
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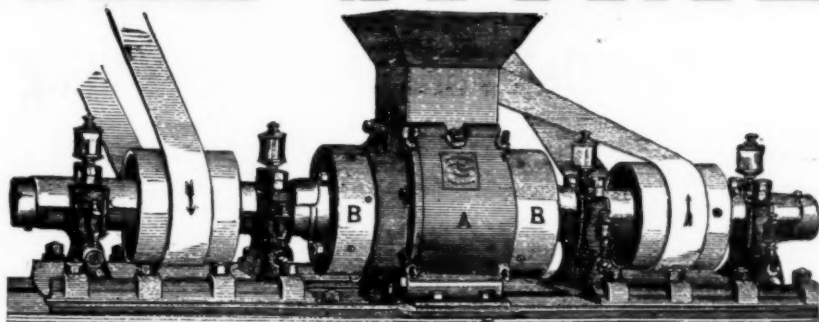
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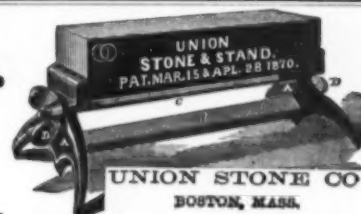
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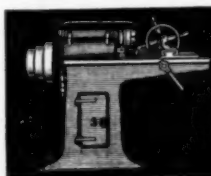
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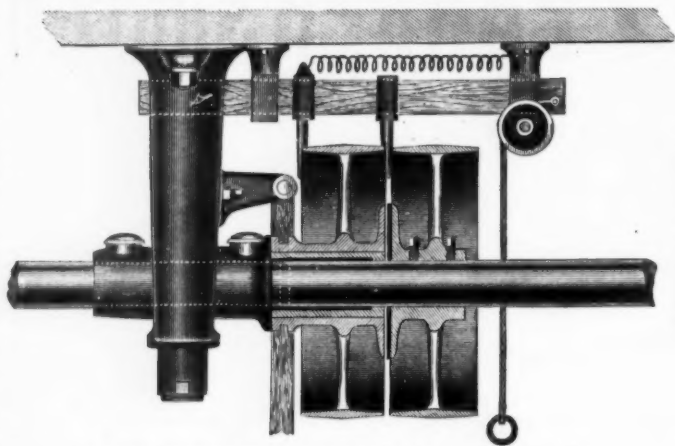
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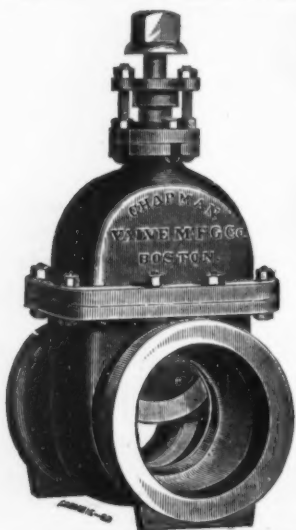
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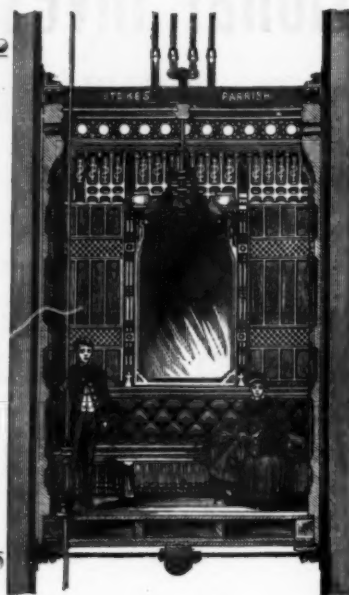
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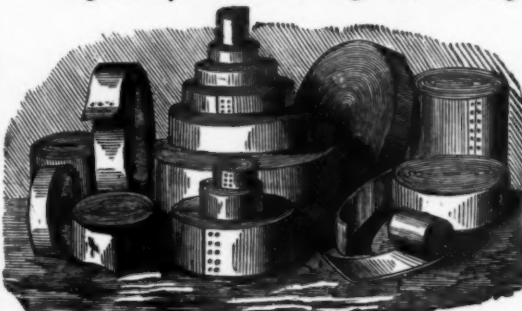
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